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PAPER TRADE JOURNAL

Vol. LXXXII, No. 22 JUNE 3, 1926 Per annum, $4.00 Per copy, 10 cents

Daily Newsprint Production on Walmsley Machines

2700 TONS

The daily production of newsprint on Walmsley machines by the end of 1926 in Canada and Newfoundland will be 2700 tons.

It is a striking tribute to the quality of our machines that nearly 50% of the total newsprint production of these two countries should be made on Walmsley machines.

Here is a list of the machines installed and on order:

Abitibi P. & P. Co.	3	The E. B. Eddy Co.	1
Anglo Newfoundland Co.	2	Newfoundland P. & P. Co.	4
Bathurst Co.	2	Powell River Co.	2
Belgo Paper Co.	4	Price Bros. & Co.	6
Donnacona Paper Co.	1	Wayagamack News, Ltd.	2

Of these fifteen have been installed within three years and five are on order

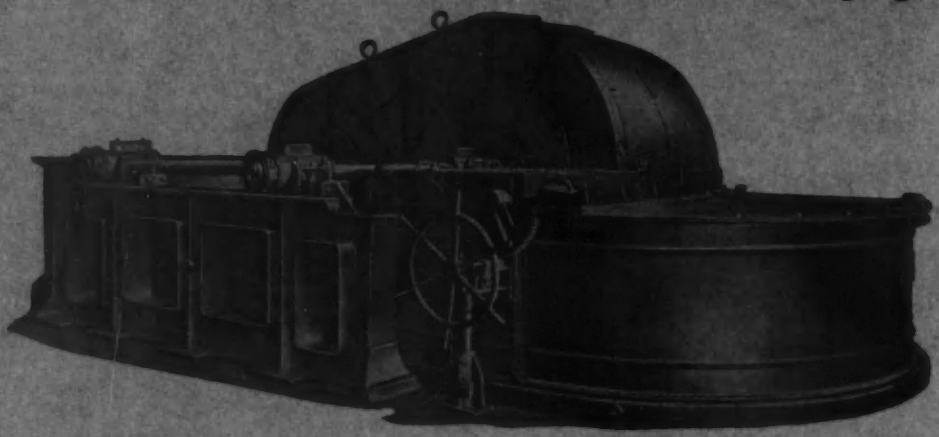
We are prepared to take care of your requirements promptly

Charles Walmsley & Co. (CANADA) LIMITED

Works: Longueuil, Que.

Office: Montreal, Que.

Some Interesting Facts Concerning the Noble & Wood Pulping Engine



The following are a few of the results which have been determined by actual test:

Domestic Kraft pulp laps, 45% dry, fed into 1200 lb. pulper through chute from overhead, treated for beater and dumped within ten minutes. On thoroughly dry foreign Kraft, total time elapsed was 21 minutes.

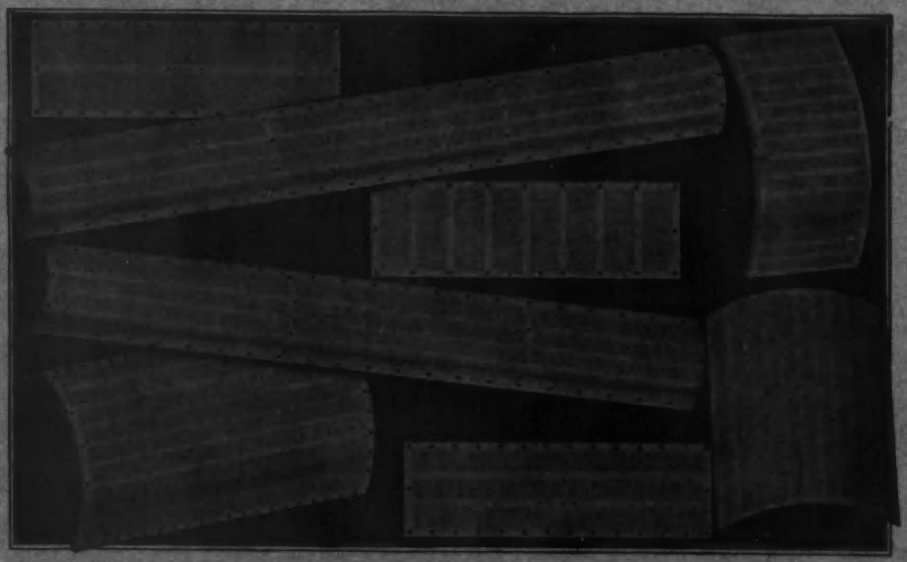
On straight wood pulp furnish, 80% groundwood, 20% sulphite, a 1200 lb. engine thoroughly pulped the stock, ready for jordans, in 20 to 30 minutes.

Many other equally good records are available upon request.

Our booklet "CUTTING PRODUCTION COSTS WITH THE PAPER PULPING ENGINE" carries a full history of the development of the pulper. Write for a copy.

THE NOBLE & WOOD MACHINE CO., Hoosick Falls, N. Y.

WILLIAM A. HARDY & SONS CO.



FITCHBURG, MASSACHUSETTS, U. S. A.

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PAPER TRADE JOURNAL

With Which Is Combined

Vol. LXXXII. No. 22 — PULP & PAPER — Thursday, June 3, 1926

The Magazine of the Paper Industry

More New Paper Mills to be Erected in Quebec

Pulp and Paper Mills To Be Built by Anglo-Canadian Pulp & Paper Co. at Limoilou—Contract For Dredging Estuary of St. Charles River and Construction of Wharves To Be Given in New York Shortly—Mill To Be Completed by End of Next Year —Construction of St. Ann Mill to Start Soon

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., May 29, 1926.—The Anglo Canadian Pulp and Paper Company, which is to erect pulp and paper mills at Limoilou, in the outskirts of Quebec City, has received tenders for the dredging of the estuary of the St. Charles River and the construction of wharves, which is expected to cost in the neighborhood of a million dollars. The contract is expected to be given in New York by the first week in June, on the arrival of Frank Clark, the head of the company, from abroad. According to the present programme, construction is to start on June 10, while construction of the mills will start in September, in order that they may be completed and in full operation by the end of 1927. Pulpwood will be obtained from the holding of the Gulf Pulp Company on the North Shore, near the Manicouagan River. The news print manufacturer will be shipped to England for the Rothermere newspapers. The total amount involved in the development is over $10,000,000.

Indians and Forest Protection

An appeal to the Indians, particularly to the braves of the Algonquin tribe, has just been by one of their oldest chiefs, Louis Tenascon, on the North Shore, for precaution against forest fires. A notice has been written in the Algonquin dialect and fastened to trees all through the territory over which the men of the tribe are liable to travel. Translated it reads as follows:

"My dear children and well-beloved, I beg of you this season, you who are always in the woods, if you see a fire to put it out if possible, and if you cannot put it out yourself, notify at once the forest rangers. Do not smoke while traveling through the forest. You know yourself what else you should do.

(signed) "LOUIS TENASCON."

Another News Paper Mill

The St. Ann Power and Paper Company has announced the construction of a news print mill with a capacity of 250 tons per day. Construction of the mill, which is to cost around $4,000,000, will be started before July 1. J. T. Donohue, of Quebec is president of the company.

Power from Ocean Tides

The bill to authorize the Canadian Dexter P. Cooper Company to harness the tides of Passamaquoddy Bay, New Brunswick, for the development of electrical power, has passed the private bills committee of the House of Commons, and it now goes back to the House.

By the projected scheme, it is expected to develop 500,000 to 700,000 horsepower at a cost of between $75,000,000 and $100,000,000. A series of dams with navigation facilities are to be constructed between the islands from the coast of Maine to that of New Brunswick, the International boundary here, running down the bay which separates Canadian from United States territory. The power house is on the American side of the international boundary.

Inventory of Anticosti's Resources

Gustave Piche, chief forestry engineer for the Province of Quebec, has been granted leave of absence by the Provincial government for the purpose of making an inventory of the resources of Anticosti Island for the Wayagamack Paper Company. Estimates place the area of the island at about 4,000 square miles, with over 80 per cent timbered.

Export of Pulpwood

The Rt. Hon. Arthur Weighen, Conservative leader, speaking in the House of Commons, asked if any action were being taken by the government with respect to the exportation of pulpwood, or if matter was still under consideration. Premier King briefly replied that the matter was under consideration. Supplementing this, it may be stated that no action whatever is likely in regard to the proposal to prohibit the export of pulpwood from private lands.

Wayagamack and Anticosti

President C. R. Whitehead, of the Wayagamack Company, who has just returned from Europe, states that the report that the Wayagamack Company has closed the deal for the purchase of Anticosti Island from the Menier interests is premature. He admits, however, that the company now holds an option. It appears that some details have to wait upon a report on the report, but the general opinion is that the option will be exercised. The date of its expiry has not been stated.

Finland's Pulp and Paper Exports Increase

WASHINGTON, D. C., June 2, 1926.—Exports of both pulp and paper from Finland during the first quarter of 1926 were considerably under those during the corresponding three months in 1925, shipments of the former reaching only 63,756 metric tons and of the latter 60,096 metric tons, in comparison with 90,621 tons and 62,235 tons respectively last year. The greatest decreases were in exports of mechanical pulp which fell from 16,801 tons to 5,717 tons and of sulphite pulp which fell from 53,882 tons to 44,983 tons during the period in question. Exports of newsprint, which represent over one-half of the paper and board shipments, were somewhat better than during the first quarter of 1925. Wrapping paper exports also show a small increase.

Philadelphia Paper Market in Strong Position

Optimistic Report for First Six Months of Year Confidently Anticipated—Prices Are Now More Stabilized Than at Any Period During Past Four Years—Fine Paper Market Is Experiencing Quieter Trend—Wrapping Paper Division Continues to Expand

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., May 31, 1926.—As the semi-annual accounting of business in the paper trade draws near the dealers are looking forward to an improved record for the first six months of the year. From present indications the optimistic report of the first half of 1926 is assured. Dealers who have already started on the summary of sales in the past five months find that there is considerable percentage of increase over the same period of 1925 and so are led to believe that the industry as a whole will show a decidedly improved paper market. While the daily sales are apparently of small quantities, the growth in the general demand is manifested in the bulking of a fairly large volume of all grades of standardized consumption. With the volume of paper distribution showing a broader expansion, the net income is proportionately larger, due to the lack of material price cutting customarily reported at this season. In fact, prices have become more stabilized than in the past four years, especially in the coarse grades.

Fine Papers Less Active

It is not to be expected that fine paper distribution would advance at this season, and so the dealers are not at all discouraged over the present quieter trend of the markets for many grades of the printing and writing papers. Book papers have been more active than the bonds, ledgers or other lines consumed by the commercial or job printers. Announcement stocks, greeting card specialties, coated papers and cover grades have been the most active of the list. The stationery trade has come into the market for many of the better grades of social boxed papers, especially the papeteries, now being bought in advance of the holiday demands. The year round standard grades of boxed papers have also been moving in fairly well maintained volume. Printers report a slightly less active demand for printed matter of all kinds, and this has been reflected in the paper market where the commercial and job concerns receive their source of supplies.

Coarse Papers Slightly Improved

The coarse paper market has been expanding in the wrapping paper division particularly, for the grades consumed by the mercantile trades. The demand among wrapping and specialties used by the textile industries has been lessening as the month wanes. The manufacturers of all lines of textiles have been gradually slowing down in operation and so their paper purchases have been confined only to the needs of the moment and in considerably smaller orders at a time. Fancy wrappings for the clothing industries producing women's wearing apparel have been expanded, due to the summer month's approach and, with the millinery trade requirements, have been more active than since the holiday months. Lower levels in the quotations on paper stock of the common grades have made possible the slashing into the prices on all grades of board used by the box manufacturers and other converters. Chip is now quoted at $37.50, while news board may be had at $40 per ton. Where considerable tonnage orders are to be secured the prices have been even lower, but as this is the exception rather than the rule, the above values prevail.

Paper Stock Market Dull

Paper stock dealers are at a loss to account for the present extreme dullness and absence of mill buying. Ordinarily the mills begin to scout around for their summer supplies of paper and rag stocks at this season, preparatory to resumption of operations for the Fall. The wholesalers of paper stock believe that the mills must have a larger supply of stock on hand as prices are sufficiently attractive to stimulate business and turn the tide to a buyers market. The mill men have had the reins of stock values held firmly in their hands for the past month or more, and are dictators of prices, so that it is not a matter of high quotations that is holding them off from the stock market. The common grades have been the hardest hit in the slash into the values, and although no heavy stocks are on hand, the prices are lower than in several years. The higher grades of paper stock have been holding more steadily although they too are attractively listed for the mill buyers benefit.

New Agents for Hamilton Specialties

W. C. Hamilton & Sons, of McQuon, Pa., announce the appointment of the D. L. Ward Company as co-agent for the Aloudweave. They, together with the Raymond and McNutt Company will distribute this attractive line in Philadelphia. A new sample book for agents will add to the attractiveness of this line.

Announcement is also made of the appointment of the Wilcox-Walter-Furlong Paper Company; the Whiting-Patterson Company, Inc., and the Garrett-Buchanan Company, as agents for Hamilton's Mellow Book, Bright White English Finish and Bright White Super, in Philadelphia.

Specialty Paper Company Erecting Modern Plant

DAYTON, Ohio, June 1, 1926.—The Specialty Paper Company is continuing progressive steps toward the completion of a modern plant, having just been granted a permit for the erection of an addition to its factory by the City Building Inspection Department. Excavation work has already been started and it is expected the new structure will be completed and ready for occupancy within six weeks. This will be a building record, as the addition is a substantial structure costing in excess of $10,000. It is being erected on the east side of the present plant at the southwest corner of Miami Chapel Road and Brocton street, with a frontage of 66 feet, and a depth of 38 feet. It will be a one-story building of steel and concrete construction.

The new building will increase the present floor space about 50 per cent, V. H. Wilshire, president of the concern, stated today. As a result of the increased capacity, a larger force will be employed. Frank Hill Smith, Inc., engineers, are in charge of the construction. This Dayton firm is also building a large warehouse for the Fairbanks Fibre Box Company at Middletown.

Crown-Willamette Officials Confer

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., May 27, 1926.—The Crown-Willamette Paper Company officials held their third annual conference at the Columbia Gorge Hotel, Columbia Highway resort, near Portland, Ore., during the five days beginning May 24. More than fifty executives and officers were present, including all men in the Pacific Northwest who are serving in high capacity in the company, and others from Floriston, Cal., and Ocean Falls, B. C. Louis Bloch, president of the Crown-Willamette Company was present, as was also A. J. Lewthwaite, vice president. The sessions were devoted to general internal problems of the company, but not the least of the affairs was the Oak Grove golf course of the Hood River Country Club, which extended its welcome to the paper men and their guests. There was also card parties for the ladies, numerous dinners, and dancing to an excellent orchestra.

THE flexible
doctor that always hugs the roll and never scores.
Ideal for both calenders and dryers.
BIRD MACHINE COMPANY
South Walpole
Massachusetts
BIRD
MACHINERY
Built for the continuous production of uniformly good paper

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Chicago Paper Trade Experiencing Summer Lull

Some Slackness Follows Completion of Exceptionally Busy Four Month Period — Jobbers Stocks Reported to be Smaller Than at This Time Last Year—Some Paper Houses Find Business Holding Up Very Well—Waste Paper Industry Comparatively Inactive

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., May 28, 1926.—The effect of the tonic of abundant spring business is beginning to wear off among some of the handlers of fine paper, and a few of them are visioning a period of dullness of varying intensity, according to the way they are accustomed to looking at such things. When one stops to consider that the summer months always show a slowing up of buying in nearly every commodity, and with paper no exception to this rule, it would seem that the slack season would come to be accepted as a natural and unavoidable situation, with no need to worry about it.

But that is not the way with human nature. With some people calamity is only about two jumps away, and they adopt a pessimistic viewpoint right at the completion of one of the busiest four months the trade ever experienced. Others are more conservative, and while they don't like slack seasons any better than their more temperamental brothers, yet they are more rational in their judgment, and find nothing in the present lull in buying to lose any sleep over. And indeed, there is nothing unusual in the situation. Users of paper happen to be fairly well supplied for their presents needs, and will be in the market again when the public and the world, begin of industry thinking of the increased business that comes with cooler weather, and accordingly start preparations to get their share of it.

We do not think it a poor policy to discuss the situation as it actually exists, and do not agree with the attitude of a few well-meaning factors in the paper industry that publishing the fact that a more or less dull period exists tends to force prices down or gives the consumer any additional advantage than he would otherwise have. It is the mission of a business publication to record conditions, not make them. Therefore, if one man says "Business is rotten," another says "Sales are a little off right now," and a third says "Our business is holding up in pretty good shape," then it is apparent that somewhere between the extremes of these viewpoints may be found the true description of conditions. And these viewpoints just quoted are exactly what one hears when he makes a personal survey of the field.

So, everything considered, it would seem that this year's conditions are no different from those of former years, except that the summer slackness has come a little earlier than usual. Most weather came last year, so that they are more favorably situated to endure a period of quietude.

Kalamazoo Organization Still Active

The summer dullness has not yet hit all of the paper concerns, in fact, the Kalamazoo Vegetable Parchment Company, with sales offices at 80 E. Jackson Boulevard, being one which finds business holding up in a very satisfactory manner for this time of the year. This firm is still filling orders for the one grade of sulphite bond paper it manufactures at Kalamazoo, Mich.. "We will doubtless get into the summer slump," stated J. F. Eaton, "but we haven't found it yet."

Supplies Trade Journal Paper

The Seamon Paper Company, 410 N. Michigan Avenue, has an interesting specialty—that of supplying paper used in many trade journals published in Chicago, both inside and cover stock. For years it has cultivated this business and today enjoys the patronage and confidence of perhaps half the journals of this kind. When one considers the large number of such publications in Chicago, probably two hundred or more of first importance, this phase of the Seamon operations will be more readily appreciated. The firm sells much stock direct to the printers, and the bulk of its business is in supplying printing papers and such specialties as waxed paper and other kinds not in common use. In fact, the large volume of business transacted annually is attributed, to a great extent, to the variety of lines handled. Book papers, however, constitute the greatest percentage of sales.

Coarse Paper Sales Ahead

Most paper concerns find that their sales of coarse paper are ahead of those of January to May of last year; some jobbers say considerably ahead. There has not been much of a let-up in demand for kraft and parchment as for book and fine printing lines, and in some instances the matter of securing supplies in large quantities has been rather troublesome. One concern expressed disappointment that some of the mills are not disposed to offer any price advantages to the large buyers. An official of this firm related how he had been ready to place a one-thousand-ton order for butcher's paper for shipment as fast as it could be loaded, only to find that he could not secure a price lower than that quoted on the market to any small buyer. As the result, he said, he intends to reduce his inventory one-half.

Hollis & Duncan Going Strong

Hollis & Duncan, whose mammoth establishment is located at 732 W. Lake street, and seventy-five per cent of whose tonnage is in the kraft line, is turning over merchandise faster than heretofore, stated President H. B. Hollis. This concern is making plans to enlarge its manufacturing department, which is already of large proportions, and which is equipped to manufacture anything from an automobile cover down to a peanut bag. It recently began work on an initial of nearly 7,000,000 vegetable parchment bags, 2¼ by 7½ inches in dimension, for containing a popular summer candy, and this order will be substantially increased, Mr. Hollis said, when warm weather arrives. The Hollis & Duncan firm specializes in glassine bags for soda fountains, using them as containers for cookies and crackers, and the sales of these run into many millions every year. Glassine bags for a popular popcorn 3¼ by 1½ inches, run into other millions. Sausage boxes, and boxes for holding laundry, clothing, etc., and lard bags made of vegetable parchment for foreign shipments are other standard products of the Hollis & Duncan manufacturing department. Grocery bags are handled only in a jobbing way, as the concern has so far been able to obtain supplies of these as cheaply as it could make them.

The old paper industry is comparatively inactive now, merely waiting until the usual fall resumption of normal demand. One concern, the B. Park Paper Stock Company, still finds some call for its special grade of shavings used in wall paper mills, but this line, too, is quite dull. Supplies are still up to average quantity, though at some plants it was reported that many gatherers of paper about the city have temporarily abandoned collecting old papers until prices increase.

Flatt Secures More Newspaper Tonnage

James Flatt, of 9 South Clinton street, Chicago, has contracted with the *Detroit News* and the *Detroit Free Press* to handle their accumulation of waste paper for a period of time. This is in addition to the newspaper tonnage he already controls from the Hearst newspaper and others.

In the Past Five Years Every New World's Record Making Race Has Been Won on

New Departure Ball Bearings

EACH succeeding record means greater speeds, more terrific strains and greater need for endurance—many times that ever demanded in ordinary service.

Because they have *never failed in any race,* nor showed any signs of wear, practically every driver in the great speedway races uses New Departures exclusively. De Paolo's car, for instance, has 47, taken at random from general stock.

The superlative quality which enables New Departures to endure the grinding, gruelling, racking stresses of such break-neck speed qualifies them for the same satisfactory service in any mechanism where reduction of friction and wear is advantageous and long life and uninterrupted service desirable.

The New Departure Manufacturing Company
Chicago Bristol, Connecticut Detroit

1922 by MURPHY (500 Miles) 94.48 Miles Per Hour

1924 by FENGLER (250 Miles) 116. Miles Per Hour

1924 by BOYER (500 Miles) 98.24 Miles Per Hour

1924 by HILL (250 Miles) 126.9 Miles Per Hour
1926 (250 Miles) 131.29 Miles Per Hour

1925 by De PAOLO (500 Miles) 101.13 Miles Per Hour
1926 (300 Miles) 129.29 Miles Per Hour

1926 by Hartz (300 Miles) 134.1 Miles Per Hour

Ontario Paper Business Falls off Slightly

Postage Reduction Effective Dominion Day, Expected to Stimulate Fine Paper and Envelope trade—Wrapping Paper and Bag Output shows Improvement—Grease Proof and Glassine Paper in Good Request—May Business Satisfactory to Jobbers

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., June 1, 1926.—Business in the paper trade fell off a little during the past week owing to the holiday, but the past month, taken as a whole, was a very satisfactory one with the jobbers. There is a good demand for grease proof and glassine papers, chemists, candy makers and others making heavy requests on the mills. There has recently been considerable competition from German sources, but prices have remained steady, and the quality of the Canadian product is being improved all the time. In wrapping papers, bags, etc., the mills are fairly busy, and some improvement has been shown of late. The actual turnover is ahead of last year but prices have been down in some lines. While the volume has been larger the profits have been smaller. In anticipation of a busy picnic season this summer, manufacturers of tissue paper napkins, luncheon sets, and allied lines have been turning out an increased quantity of supplies.

Reduction in Postage

The reduction of postage from three to two cents on letters, going into effect in Canada on July 1 next, which will be the fifty-ninth anniversary of the Confederation of Canada, and is known as Dominion Day, is expected to increase the demand for envelopes and fine papers. It is believed by manufacturers and jobbers that the decrease in postage rates will stimulate direct-by-mail advertising and general printing.

Owing to the objection raised by a large manufacturing concern in the United States to the use of the label, "Velva-Tissue," by the Interlake Tissue Mills, Toronto, the case was given several hearings before United States patent attorneys. Decision has just been rendered by the patent officials at Washington in favor of the Interlake Tissue Mills, which will continue to use the label.

Will Locate Mill at Kapuskasing

The Spruce Falls Power and Paper Company, Kapuskasing, Ont., has finally decided that the 550 ton paper mill will be located at Kapuskasing, Ont., instead of Smoky Falls. A start has been made on grading the railway from Kapuskasing to Smoky Falls and excavation is under way for the extension to the sulphite pump plant. It will be August before work starts on the news print mill. In the meantime, the labor market is flooded, and unemployment continues to be one of the most difficult problems of this boom town, where the company will expend some $15,000,000 in carrying out its extensive program of development.

Fort William Company Will Extend

The Fort William Paper Company, Fort William, Ont., is making plans to provide a sum of $12,500,000 to be used in extensions and additions to its plant. The ultimate capacity will be 400 tons daily, and a sulphite mill will be erected, costing about $2,000,000. The news print unit will be doubled next year by an additional building, and the year following, the plant, it is expected, will be brought to three times its present size by the building of still another addition. It is stated that the plant, when fully completed, will require the permanent employment of about 600 mill workers. Including the additional help needed in the woods department, the force, after three years, will be 1,000 or more men.

A meeting of the Fort William Paper Company was held in Toronto lately, at which C. G. Calvert, manager at Fort William, was in attendance. The question of the extension was fully discussed. Taken in conjunction with the fact that an announcement is being awaited from the Executive of the Great Lakes Paper Company, Fort William, it is believed that city is coming to its own, and an increase of several thousand in population will be witnessed within the next few years.

General Manager of Merritton Plants

Richard Carroll, who for the past fourteen years has been associated with the Garden City Paper Mills and the Canadian Vegetable Parchment Company, Merritton, Ont., is now acting as general manager of these organizations, which position was filled until recently by C. Nelson Gain, now of the Interlake Tissue Mills. The office of president of these companies, held until recently by Charles V. Syrett, of Toronto, who resigned, has not been filled, but, it is understood, a meeting will be held in the near future, when some action will likely be taken. Leo E. Charles, of Toronto, is secretary-treasurer of both companies. Mr. Charles, who is also vice-president of the Victoria Paper and Twine Company, Toronto, was recently appointed general manager of that concern, succeeding Mr. Syrett. He has been identified with the Victoria organization for some seventeen years and is well known in the trade.

Practice Will Be Stopped

At the regular monthly meeting of the Toronto Typothetae, held at the City Club, President W. H. Brigden stated that complaints had reached him to the effect that some paper supply houses were selling at net prices to the customers of printers. There was no objection to jobbers disposing of paper direct to clients of printers if the long price list was charged. Mr. Brigden asked that any concrete cases be laid before the committee, and action would be taken to put a stop to sales at net list. Diplomas were presented to several members of the estimating class which has been conducted during the past season by Mr. Brigden, who was presented with a gold watch by the Typothetae and by the members of the class with a traveling case in appreciation of his good work.

Spanish River Directors Meet

A regular meeting of the directors of the Spanish River Paper Mills was held in Toronto last week, at which President George H. Mead, of Dayton. Ohio, who has been spending the past winter in California, presided. Only routine business was attended to. Among those present were C. H. L. Jones, manager of operations, George R. Gray, woods manager, T. H. Watson, T. W. Sime, A. H. Chitty, treasurer, J. G. Gibson, secretary, and W. N. Hurlburt, president of the Fort William Paper Company. P. B. Wilson, vice president of the company, is at present on a trip to Great Britain and Europe.

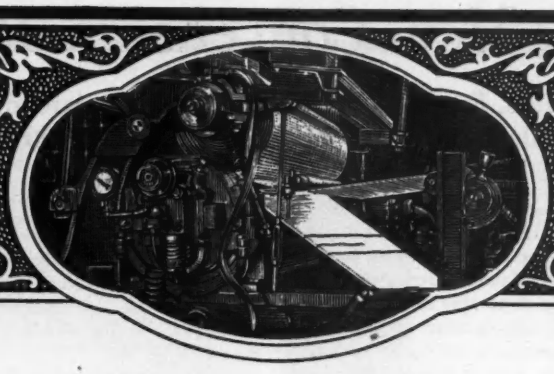
Notes and Jottings of the Industry

J. J. Herb, head of the Westminster Paper Mills, New Westminster, B. C., was in Thorold last week, the guest of T. A. Weldon, vice president of the Provincial Paper Mills.

N. Jones, of Samuel Jones & Co., London, Eng., who has been on a business trip to the Pacific Coast, was in Toronto lately on his return and sailed from New York for home. He was delighted with his first visit to the Canadian paper trade.

The thirteen young men who graduated this season from the Faculty of Forestry, University of Toronto, have been given permanent work with pulp and paper companies and with the forestry department of provincial government.

Cameron & Freser, paper jobbers, 49 Simcoe Street, Toronto, have removed their offices next door, where they have had their warehouse, so that all departments are now housed in the same space.



Getting the water out with dimes instead of dollars— at higher speed!

HAMILTON WET FELTS are so designed as to give maximum efficiency in water-removal. They take out many extra pounds of water on such production as box board, chip board, etc., that would cost many times as much to remove on dryers. Why spend a dollar when a dime will do the work?

Hamilton Felts are marked by two blue lines full width of the felt and by one shorter blue line midway between them.

Hamilton Wet Felts deliver high efficiency service even at high speeds and their efficiency in water-removal is secured without sacrifice or tough durability.

Hamilton Felts are securing production-economies that make them worth a practical running test on your machines. The best way to judge Hamilton Felts is to run them. They will give you better service than you expect.

Talk with a Hamilton Felt Man about your felt problems. There is a Hamilton Felt for every need in paper production

SHULER & BENNINGHOFEN **Hamilton, Ohio**

The Miami Woolen Mills **Founded 1858**

Hamilton Felts

Paper Box Men Convene in Philadelphia

Several Hundred Box Makers, From All Sections of Country, Attend Annual Gathering at Ben Franklin Hotel, Philadelphia—Many Excellent and Informative Addresses Rendered By Prominent Men—Attractive Box Exhibits Arouse Intense Interest

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., May 29, 1926.—The most important of trade events in the Quaker City industry in the week past was the annual gathering of the National Paper Box Manufacturers Association, which convened in this city from May 25 to May 28, at the Benjamin Franklin Hotel. While 700 box makers from all sections of the country assembled here to participate in their yearly convention, the paper trade and machinery and equipment industries, identified with the allied enterprises were most generously represented and perhaps in larger number than ever before. Philadelphia supply houses and equipment dealers and manufacturers, particularly contributed to the numerous exhibits made in the Benjamin Franklin Hotel or at the plants of the Quaker City firms. The entire range of the paper box supplies in fancy and standard stocks, featured by the paper houses was a colorful and uniquely attractive display of modern developments of paper making for the allied industries. Artistic creations for the better class of boxes, modish mixtures of color and designs for the extremely stylish types of containers, and practical, durable and plainer industrial packing box papers, all were represented in the imported and domestic grades on exhibition by the various manufacturers and distributors of box papers. The largest selection in point of number of brands and types of box making paper supplies was represented in the 1926 exhibits of the National Paper Box Manufacturers Association and the associates in the supply division of that organization.

Welcome Extended

Opening the Tuesday session, Col. Philip Gadsden, of the Philadelphia Chamber of Commerce, greeted the members and extended to them the hospitality of the business men identified with the organization, and the officials of the city. He was introduced by President Frank Stone, of the National Association, and of the Philadelphia firm of the Jesse Jones Paper Box Company, who presided at all the business sessions and social functions. Secretary Frank S. Record reported on the National Paper Box Association activities for the year and was followed by Professor John G. Callan, Harvard University, who addressed the meeting on business management and declared that control was passing into the hands of a newer generation of leadership. Dr. Joseph Willetts, of the University of Pennsylvania, talked on trade expansion and its results in progressiveness, due to research of the past fifty years, which has accomplished more than the past 1,000 years in industrial advancement. Robert S. Binkerd, vice chairman of the Eastern Railroads Committee on Public Relation, also occupied the speakers' platform. In the evening the Philadelphia Paper Box Manufacturers Association entertained the visiting box makers at a dance and Monte Carlo entertainment.

Address of Howard P. Beckett

The important discussion of the Wednesday session was that of Howard P. Beckett, Commissioner, of the National Paper Box Manufacturers Association, who gave a most interesting and informative talk on the subject of Trade Revolution. He covered the entire revolutionizing influences which have taken place since the signing of the Armistice. He stressed the policies and plans which were the vogue and were regarded as the acme of efficient management, and which have been superceded by more modern ideas of management by progressive younger business leaders with fresh vision and newer thoughts in keeping with the advancing industrial era. He brought out the importance of hand to mouth buying now replacing and tremendously affecting the present day markets and its revolutionizing influences on industry, quantity production and installment buying, stressing these as the important factors of modern commercial life, and their future developments in the industrial world. Other speakers at this session were W. Clement Moore, on "Management"; Henry Stortz, on "Cost Finding"; James L. Kalleen, E. P. Bradford, and Mrs. M. P. Everard, in ten minute talks. In the evening the supply men took the part of hosts, entertaining the ladies as their special guests for the social program of dancing, banquet and vaudeville.

E. E. Brooks, Dennison Mfg. Co., Talks

Foresight was advised by E. E. Brooks, of the Dennison Manufacturing Company, who was the important speaker at the Thursday session. He went over the ground of preparedness and suggested policies for correcting seasonal fluctuations and balancing output and sales.

"An unforgettable lesson was learned by the business world from the industrial slump of 1920," said Mr. Brooks. "In that period manufacturers, wholesalers and retailers were incumbered so badly by enormous inventories that during the readjustment that followed many were unable to survive.

"They were looking ahead and remained under the impression that the wave of prosperity would continue. They could see no let-up and refused to check production rates. Those who had the foresight survived.

"Guarding against seasonal fluctuations is a long-range problem, not tomorrow's," Mr. Brooks continued. "If you know that your factory will be out of work next January or April, you should be able to do something about it, and now is the time to do it. Put your problems down on paper and you will find that they resolve themselves into making sales and production evenly balanced.

"The firm I represent works months ahead, some lines as much as three years ahead. Orders were placed for some 1927 lines six months ago; 1928 business will be undertaken next December, and 1929 preliminaries are now being considered. It is the senior executive's obligation to create a picture of future business and keep us progressing, with the goal always far ahead."

Saying that the widespread use of the paper box has greatly lowered operating costs, J. Bartley Doyle, president Keystone Publishing Company, said that it was also a determining factor in acquiring new business.

"Take the paper box in one line of business and see what it has done," said Mr. Doyle. "Consider it in the grocery store. The paper box, automatically filled, sealed and weighed by machinery, has taken the work out of sugar-selling for the grocer and saved him money."

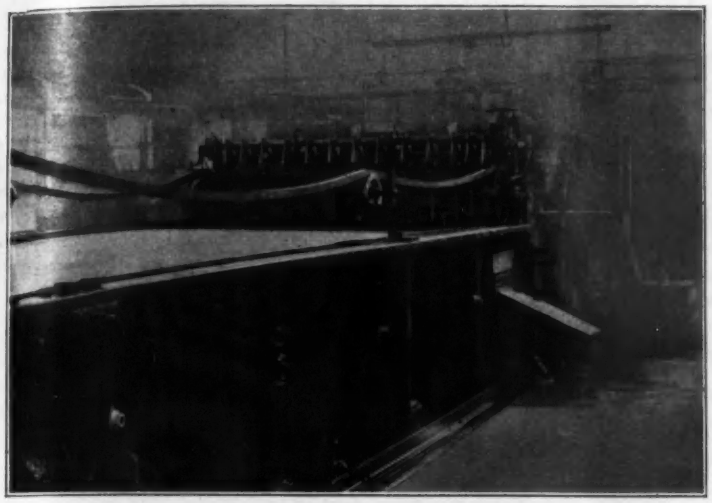
Other speakers were Winthrop L. Carter, Harold O. Dailey, Ralph Harden and Walter C. Carlson.

A golf tournament was held in the afternoon, and in the evening the annual banquet was attended by 500 of the delegates.

Friday was given over to the closing of the business sessions with a talk on "Relationship Between Manufacturer and His Bank," by Howard Wolf, official accountant of the National Association, and an address by Frank H. Warner, Counsel for the National Paper Box Manufacturers Association, and ten minute discussions by Samuel R. Parry, Rochester, N. Y., head of the equipment firm bearing his name; George E. Buell, of the paper house of Charles W. Williams & Co., Inc., New York, and F. M. Kaufman of Atlanta, Ga.

Officers Elected

These officers were elected: President, Andrew G. Burry, Fort Wayne Paper Box Company; Vice President, Walter C. Trum,



Equip Your Wide Machines *with* Voith Stock Inlets

Among the notable developments that have taken place in recent years has been the remarkable increase in the width of the paper machine. The advent of the wide and high speed machine has allowed for mass production and this condition in paper making demands that every care must be taken lest an attempted increase in production brings a corresponding decrease in quality.

A distinct advance is found in the Voith Inlet for bettering the formation of paper and making a sheet of uniform caliper across the full width of the wire on wide and high speed machines. Let us show you how the Inlet makes quality paper on a quantity basis and at a lower cost. Write today for your copy of a new 20 page booklet which thoroughly describes the paper making advantages of the Voith Stock Inlet. Write that letter today.

135 Voith Inlets in operation

VALLEY IRON WORKS CO.

APPLETON, WISCONSIN

New York Office: 350 Madison Ave.

Specify Voith Inlets in Your New Machine Contracts

E. J. Trum, Inc., Brooklyn, N. Y.; and Secretary and Treasurer, Frank S. Records, Philadelphia; Directors, George J. Kroeck, Frank Stone, L. E. Waldeck, Paul A. Clement, and Frank Barnes.

Exhibits made by paper supply houses were confined to the third floor of the hotel, where a most representative display was featured.

District of Columbia Paper Company

One of the most representative of displays of paper box makers papers, covering a complete line of fancy grades and designs, was that of the District of Columbia Paper Company, of Washington, D. C. With W. F. Corey and Sales Manager W. W. Langtry, in charge, the District of Columbia company featured a brilliantly outstanding assortment of exclusively high grade products in every conceivable shade and color and broad variety in designs. Among the lines featured were the Washington Brilliant, Chinatex, Foliage, Gold Web Artillery, Multitone and others. Actual work and effectiveness of the papers were demonstrated in the numerous specimens of boxes loaned to the exhibit by box manufacturers, covering stationery, cigarette, hat, candy and other types of fancy containers. There was also on display a line of envelope linings. These papers are controlled in the mill ownership of the sources of raw material supply from the forest to the finishing of the paper. They are all paper, with no coating, of high grade quality and of domestic manufacture.

De Jonge Lines Original

With a wide assortment of metallic effects in gold, silver, platinum and metallic designed figures, the Pinco Papers, Camden, N. J., exploited its own creations for the box trade. Joy Y. Krout represented the manufacturers of coated and glazed stocks. Among the displays were straight metallic sheens, metallic embossed, and leather reproduction with metal designs in imprints. The factory in Camden recently has been improved and additional machinery installed to provide for increased production.

Matthias and Freeman Displays

With its famous Sunrise Line, the Matthias and Freeman Paper Company of Philadelphia, gave a notable exhibit of the wide range of papers featured by the firm exclusively. With Charles Matthias, of the firm, supervising the display, the trade was given a splendid representation of quality papers in all grades, particularly the fancy stocks. Tissues used for linings or other purposes in fancy designs and plain stock were among the features of this year's showing.

Imported Lines for Paper Service

Apart from the usually classified box makers papers, the lines of the Louis De Jonge Company, with local headquarters on 7th street near Cherry, and factory on Staten Island, were distinctly original. This display of the 1926 assortment of gold embossed, leather reproductions, metallics, fancy designed De Jonge products was one of the best in its class. They were adapted for many other uses besides box making, having such characteristics that might be woven in attractive gift, art and stationery commodities, and for book binding purposes or fancy printed matter. Walter Doescher, of the Philadelphia office, was in charge.

Perhaps the most comprehensive assortment of art box making papers from the most notable of European manufacturers, as well as domestic mills, was included in the displays of the Paper Service Company, 19 S. 7th street, Philadelphia. From France, Germany, Switzerland, Austria and American mills, the best obtainable in high grade and art papers were assembled in the grades of this firm. W. A. Welsh, R. S. Underdown, A. H. Wilkins and J. M. Welsh of the firm, were kept busy showing the assortment to the large number of visitors who called to view the 1926 exhibit. An entirely original use for the fabric reproductions of the Paper Service line were shown in the displays of actual work accomplished in these papers by manufacturers of desk sets, papeteries boxes and gift boxes, with the papers worked under celluloid and having all the distinctiveness of more costly materials, customarily used for such purposes. The reproductions of cretonne, gold, ivory and like materials, were marvelous in ingenuity of usage for such purposes. Other novel effects were reproductions in leather cigarette cases, and boxed, resembling real leather, jewelry cases, smoking articles and like products. There are more than 3,000 numbers to the 1926 assortments.

A. M. Collins Mfg. Co. Exhibits

The line of papers especially developed by the A. M. Collins Manufacturing Company, of Philadelphia, for its own use, when that concern was engaged in the manufacture of paper boxes, was made the feature of special exploitation in the paper supplies of that manufacturing house. Richly combined, and soft hued colors harmonized with the quality of the Collins paper box makers papers in a conservative consideration for the best of taste in box craft. There were several hundred assortments for the standard requirements of the box industry. Howard A. Stone, presided over the Collins displays.

A. S. Datz & Son Feature Quaker Quality Papers

Quaker Quality Papers were featured by the A. S. Datz and Son Company, of Philadelphia. Two new grades of the Quaker Quality were shown in the Britelac and Dullac, a very reasonable embossed paper in two finishes. With John Datz, Howard Marcus and Joseph Mearz in attendance, the Philadelphia fine paper dealers gave a comprehensive assortment of box makers supplies.

Whiting Paterson Co.

The broad assortment of the Whiting Paterson Company, Philadelphia, was made the object of displays for that firm, with President Allen E. Whiting personally directing, assisted by Representative Pitts, of the sales organization. A complete line of box makers papers, from the commercial grades to the high priced fancy stocks were among the assortments.

McLaurin Jones Co.

The full stocks of the McLaurin Jones Company, paper manufacturers, Brookfield, Mass. was made the feature of this exhibit. Metallic effects, embossed specialties, combination color assortments, pastel covers, Ware Plated Papers, Froston, Waregold, Pallium, and a line of edgings were among the stocks of the Ware Coated Paper Company Division of this paper manufacturer.

Domestic Paper Mills Co.

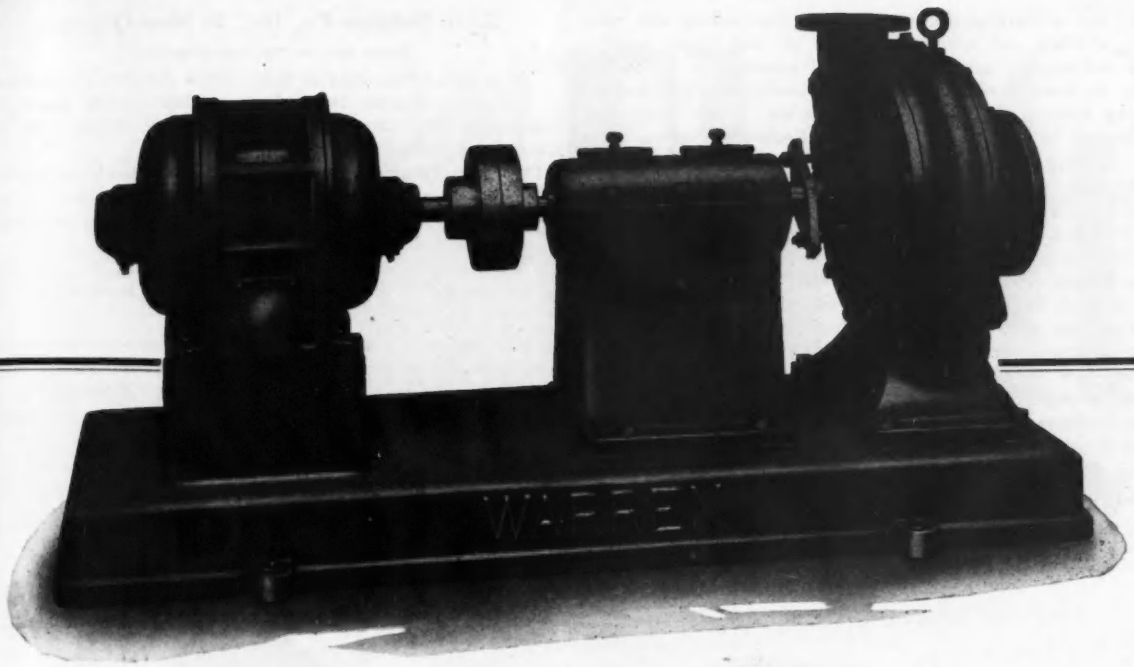
Every need in the way of paper box makers papers is anticipated in the popular priced lines made by the Domestic Paper Mills, of Peapack, N. J. The manufacturers showed the new 1926 holly assortment for the coming Christmas season, glazed papers for industrial boxes, trade mark papers, glassines, fancy stocks, linings and a wide range of selection. The Domestic Mills specialize in trade mark papers in both glassines and cover papers or wrappings. L. A. Zwiller was in attendance and announces that the mills have been recently supplied with additional equipment to provide for the extension of the glassine lines. The glassines have been expanded to include all grades of plain and embossed styles with all the desirable designs in embossed effects. There are also produced glassine imprint trade mark papers, made to order or in stock grades. The mills are anticipating the opening of a Philadelphia distribution, affiliated with a local paper distributor.

Other Displays

Other paper mills and distributors who were represented in the exhibits and at the convention were the La Boiteaux Manufacturing Company, Nashua Gummed and Coated Paper Company, Charles W. Williams Co., Inc., Philadelphia Paper Manufacturing Company, Philip Rudolph Sons, Continental Paper Company, Charles Beck Paper Company, Downingtown Paper Company, Hampden Glazed Paper and Card Company, Crane Pike, Robert Gair Company, Holliston Mills, Inc., Lackawanna Mills, Manchester Board and Paper Company, National Coated Paper Corporation, Pawtucket Glazed Paper Company, United Paper Board Company, and Chesapeake Paperboard Company.

Converting Equipment Demonstrations

Demonstration exhibitions featured the many types of box



This is the pump to handle your pulped stock

The Warren Stuff Pump handles pulped stocks up to and above 5% consistency with amazing efficiency.

You'll like everything about it—generously proportioned water passages that minimize clogging; renewable, babbitt lined, split shell ring oiling bearings supported in one extra heavy pedestal insuring perfect alignment; liberal proportioning throughout for lasting as well as high efficiency.

Install one Warren Stuff Pump in your plant. Compare its performance with that of stuff pumps you are now using. It will convince you that you'll save money by standardizing on Warren.

Will you give us an opportunity to prove it?

Warren 9272

Steam Pump Company—Warren, Mass.

Boston Philadelphia Chicago WARREN St. Paul New York San Francisco

making and converting equipment which were among the machinery displays and accessory devices of both paper supply houses and manufacturers of mechanical supplies for the trade. Among the firms were J. E. Doepel, Philadelphia; Globe Manufacturing Company, Philadelphia; Stokes and Smith Company, Philadelphia; M. D. Knowlton Company, Rochester; Schuch Machine Company, Philadelphia; Hobbs Manufacturing Company, Boston; John T. Robinson Company, Hyde Park, Mass.; Kingsbury and Davis Machine Company, New Jersey Machine Corporation, Hoboken, N. J., Cameron Machine Company, Brooklyn, N. Y., Pneumatic Scales Company, Norfolk Downs, Mass.; Poinier Carmer Company, Boston; the E. G. Stuade Manufacturing Company, St. Paul, Minn.; Swift & Co., Chicago; and The H. Griffin Sons Company, New York, with its Broghten Leaf and Brighten Leaf attachments for hot stamped work. Other supply houses were the Adex Manufacturing Company, Baltimore; Arabol Manufacturing Company, New York; Baugh and Son, Philadelphia; Dextro Products, Inc., Buffalo; Glucol Manufacturing Company; Kupfer Bros. Co., New York; Middlesex Products Company, Boston; National Gum and Mica Company; Russia Cement Company, Gloucester, Mass.; Union Paste Company, Boston; F. W. Winne & Son, Philadelphia; Western Paste and Gum Company, New York, and Le Pages Adhesive Manufacturing Company, all catering to the paper converting trades in its requirements of adhesives and chemicals or other accessories.

A. Hartung, Inc., Entertains Box Makers

Guests and business associates of A. Hartung Inc., 506 Race street, and fine paper dealers and box supply distributors attending the box makers' convention were entertained at headquarters by Richard Hartung and Edward Hartung, of the firm. The Hartung company, one of the best known of Philadelphia box makers supply dealers, extended wide open hospitality to the visitors, welcoming them in its own home, and extending the courtesies of helpfulness and comforts in many ways while in the city.

Philadelphia Paper Mfg. Invites Delegates

The entire delegation of visiting box makers were the guests of the Philadelphia Paper Manufacturing Company, at its paper board mills, in Manayunk, last Wednesday. Special sight seeing automobiles were provided to convey the box makers to the plant. They spent the entire afternoon going over the mills and viewing the manufacturing facilities of the concern.

Chas. Beck Co. as Host to Box Makers

Headquarters of the Charles Beck Machine Company were of interest to the members of the box making crafts through the week, when specially conducted trips over the plant were scheduled daily as part of the itinerary of interesting tours. All the paper converting machines were placed in operation for the box makers, and demonstrations included the sheet cutters, paper rolling, slitting and bag making equipment, of the special Beck devices.

Sabin Robbins Co., Inc., In New Quarters

[FROM OUR REGULAR CORRESPONDENT]

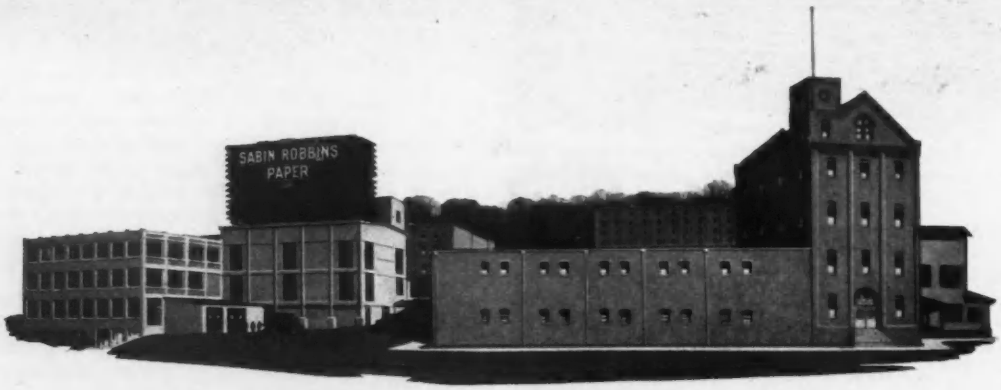
CINCINNATI, Ohio, June 2, 1926.—Sabin Robbins, Jr., president of The Sabin Robbins Paper Company, has recently located his company in commodious quarters in Cincinnati, closing up the old Middletown division entirely.

This company dates its birth into the paper world back to the year 1884, being founded in that year by Sabin Robbins, Sr., and functioning as mill agents for several large wrapping paper mills then located in Middletown.

After Sabin Robbins' death, in 1908, Mr. Robbins, Jr., established the present unique business, that of a clearing house of job lots for nearly 50 mills.

Under his management, the business has grown to such proportions nationally as to make necessary divisions in Cleveland, Detroit, St. Louis, Los Angeles and Pittsburgh. Pittsburgh is the newest member of the circle, being only recently opened, with Mr. Howard Riley as division manager.

The new plant at Cincinnati consists of 6 separate warehouses on 14 acres of land, 150,000 square feet of floor area, and 600 feet of private railroad siding. In this great new plant will be held constantly available more than 5,000,000 pounds of special papers from the 48 mills represented.



NEW PLANT OF SABIN ROBBINS CO., CINCINNATI

Henry Juninger, Jr., for many years secretary and treasurer of The Whittaker Paper Company, and an old acquaintance in the paper industry, has identified himself with the Sabin Robbins Company, since 1922 as treasurer.

Farewell Tribute to John W. Donovan

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, MASS., June 1, 1926.—John W. Donovan, retiring superintendent of the National Blank Book Company, was given a surprise and farewell present Thursday afternoon. Mr. Donovan was summoned to the mill in the afternoon at 3, on a pretended errand, when he arrived there he found the 800 operatives awaiting him. He was presented with a Ford truck, which, as Mr. Donovan is going to Charlemont to try chicken farming, was gratefully received. In it were found a full set of farming tools, jumper and overalls and broadbrimmed hat. In the evening he was the guest of the officials of the company at a farewell dinner at the Strathmore Inn in Woronoco.

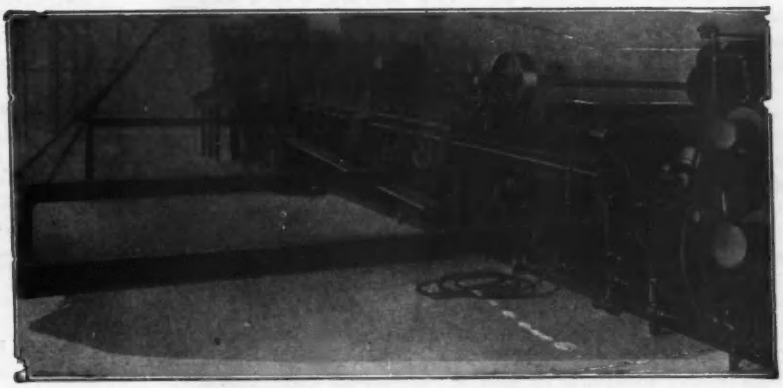
W. R. Money Takes New Post

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., May 27, 1926.—William R. Money, for three and one-half years assistant superintendent of the Hawley Pulp and Paper Company, Oregon City, Oregon, has resigned to become superintendent of the Crown-Willamette Paper mills at Lebanon, Oregon.

Thrift knows no season!

IF an efficiency ratio of 8 to 1 on a single operation means anything, certainly it means thrift, for, translated into dollars and cents it makes $13,000 saved.



Beloit Removable Fourdrinier With Rails in Place

If the NEW BELOIT FOURDRINIER can do this for one paper mill, it can do it for others also, for the Removable, Adjustable and Shakeable characteristics are all thrifty devices to meet modern needs.

Why wait for the inevitable balance sheet and cost records on that old machine? Thrift knows no season.

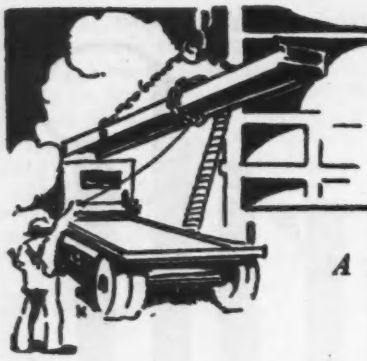
There is no time like the present for utilizing your reserve fund to good purpose.

Write for facts. No obligation.

The NEW BELOIT FOURDRINIER

FOUNDED 1858 BELOIT IRON WORKS PAPER MACHY BELOIT WIS

BELOIT IRON WORKS Beloit, Wisconsin, U. S. A.



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Saginaw, Mich.—The Sears Paper Company, Lyons and Magra streets, is completing plans for the construction of a new building at Hayden and Franklin streets, to be six-story and basement, 120 x 300 ft. reported to cost approximately $300,000, with equipment. It will be used largely for warehouse and distributing service. A general contract has been awarded without competition to H. G. Christman, Inc., South Bend, Ind., and work will begin at an early date. It is purposed to let a number of sub-contracts for different features of the work. C. W. and G. L. Rapp, 190 North State street, Chicago, Ill., are architects. Herman J. Sears is president.

Somerville, Mass.—The Ager Manufacturing Corporation, 15 Winchester street, manufacturer of corrugated boxes and containers, is said to have preliminary plans under way for the erection of the initial unit of its proposed new plant on site recently acquired near Lowell street, to be two-story, estimated to cost approximately $65,000. C. A. Ager is president.

Little Falls, Minn.—Fire, May 19, destroyed a portion of the wood pulp department at the local mill of the Itasca Paper Company, with loss estimated at $30,000, a considerable portion of which is represented by stock.

Cincinnati, Ohio—The Western Paper Goods Company, Third and Lock streets, has taken out a permit for the erection of a one-story addition to its plant on the Paddock Road, reported to cost close to $300,000, with equipment. It is proposed to push the structure to completion. F. E. Berold is president.

Baltimore, Md.—The Gordon Paper Box Company, 314-16 South Hanover street, has acquired a five-story building at 118-20 North Paca street, on site 34x150 ft. The structure aggregates about 32,500 sq. ft. of floor space, and will be remodeled and improved in the near future for a new plant. It is said that the company will later remove its present factory to this location and provide additional equipment for extensive increase in output.

Brooklyn, N. Y.—The Empty Package Supply Company, 264 Johnson Avenue, manufacturer of paper boxes, cartons, etc., has leased the two-story building at Waterbury and Ten Eyck streets and will occupy for a new plant. Alterations and improvements will be made, and equipment installed at an early date. The present capacity will be increased.

Monroe, La.—The new addition to be constructed at the local plant of the Brown Paper Mill Company will be known as unit No. 2, and will double approximately the present output. It will cost close to $1,600,000 with machinery, instead of a lesser amount, previously reported. George F. Hardy, 309 Broadway, New York, is engineer. G. F. Holmes is general manager.

Cincinnati, Ohio—The National Label Company, 5724 Davey Avenue, manufacturer of paper specialties, has filed plans for the erection of a new one-story plant at Colerain and Brashear streets, estimated to cost about $15,000, exclusive of equipment. Work will begin at an early date.

Raleigh, N. C.—The Epes-Fitzgerald Paper Company, 1326 East Main street, Richmond, Va., is said to be planning the establishment of a local branch for storage and distributing service. It is purposed to lease an existing building, and remodel and improve for requirements. The expansion is estimated to cost close to $25,000.

Kansas City, Mo.—Superstructure will soon be placed under way the proposed new three-story building of the Timmons Wall Paper Company, 1005 McGee street, at 1012-14 Locust street, for general distributing and operating service, to be 48 x 135 ft, estimated to cost approximately $65,000. A general building contract recently was let. H. A. Drake, Reliance Building, is architect. C. A. Timmons is president.

Philadelphia, Pa.—The John M. Driver Company, 1644 North Fifty-fifth street, manufacturer of paper goods, will soon proceed with the erection of its proposed new plant on site selected at Lancaster Avenue and Fifty-seventh street, reported to cost about $75,000, with equipment. Stetler & Deysher, 1015 Chestnut street, are architects.

Everett, Mass.—Fire, May 20, damaged a portion of the local plant of the Boston Fiber Company, Hosmer street. An official estimate of loss has not been announced. The damage will be replaced.

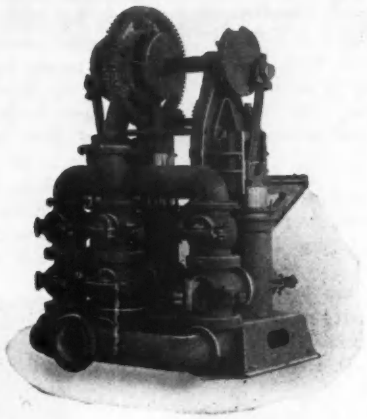
Grand Rapids, Mich.—The Michigan Tag Company, manufacturer of paper specialties, recently reorganized with a capital of $50,000, is arranging for expansion and betterments at its plant, and will install new machinery at once. The capacity will be increased.

Buffalo, N. Y.—The F. N. Burt Company, Ltd., 540 Seneca street, manufacturer of paper boxes and containers, has taken out a permit for the erection of its proposed new plant addition and will proceed with superstructure at once. It will be six-story, 180 x 230 ft., estimated to cost in excess of $425,000, with machinery. Plumer & Mann, 700 Main street, Buffalo, are architects. M. R. Cass is general manager, in charge.

Montreal, Que.—Price Brothers, Ltd., Montreal, has preliminary plans under advisement for expansion at its River Bend news print mill, to include the erection of new buildings and the installation of additional machinery to increase the capacity from 200 to 400 tons per day. The entire project is reported to cost in excess of $1,750,000. With this expansion, the company will have a rated output at all mills of about 950 tons of news print daily.

Merritton, Ont.—The Lincoln Pulp and Paper Company has begun the erection of additions to its local mills and plans the installation of new machinery for considerable increase in output. The estimated cost of the expansion has not been announced.

Toronto, Ont.—Official organization has been carried out of the Spruce Falls Power and Paper Company, recently formed by officials of the Kimberly-Clark Company, Neenah, Wis. F. J. Sensenbrenner, head of the parent company, will act as president of the new organization; J. H. Black is vice-president



Triplex Stuff Pump

These self contained pumps are made in several sizes, arranged for pulley or motor drive. The suction and discharge can be connected to suit mill conditions, either as three single pumps, a duplex and a single or as a triplex pump.

We make Single and Duplex Stuff Pumps, Stock Fan Pumps, and Centrifugal Water Pumps.

A Few Users

The Barrett Company, Peoria, Ill.
Hinde & Dauch Paper Co., Sandusky, Ohio
S. A. Bicking Paper Co., East Downingtown, Pa.
Penn Fibreboard Co., York, Pa.
McAndrews & Forbes Co., Camden, N. J.

DOWNINGTOWN MANUFACTURING COMPANY
Paper and Pulp Mill Machinery
EAST DOWNINGTOWN, PA., U.S.A.

and general manager; and J. C. Kimberly, treasurer. Plans are being arranged for the early construction of the initial news print at Kapuskassing and Smoky Falls, Ont., where sites have been acquired, including water properties for power plant construction. The paper mill will have a capacity of 500 tons per day, and the proposed sulphite mill, 250 tons daily. A large hydroelectric power plant will be constructed, and work on this station will soon begin. The complete project is reported to cost in excess of $14,000,000. Adolph S. Ochs, owner of *The New York Times,* New York, is interested in the project.

New Companies

Gardner, Mass.—The Independent Fibre Company has been incorporated with a capital of 1000 shares of stock, no par value, to manufacture fibre products. Patrick H. Murray, 131 Oak street, Gardner, is president and treasurer.

Ithaca, N. Y.—The Read Paper Company has been incorporated with a capital of $100,000, and 1000 shares of stock, no par value, to manufacture and deal in paper goods. The incorporators are N. G. Read, R. H. Heath and O. D. Hewitt. The company is represented by Stagg & Heath, Ithaca.

Providence, R. I.—The American Paper Box Company, 185 Smith street, has filed notice of organization to manufacture and deal in paper boxes and containers. The company is headed by John J. Weldon and Walter E. Allen.

Chicago, Ill.—The Central-Fold Letterhead Company, 501 Plymouth Court, has been incorporated with a nominal capital of $5,000, to deal in paper products. The incorporators are Louis E. Delson, J. E. McDonald and F. K. Hetson.

Brown Paper Mill Co. Improvements

Officials of the Brown Paper Mill Company, of West Monroe, have announced according to the New Orleans *Times-Picayune* that they will at once construct Unit No. 2, entailing a cost of $1,500,000 to $2,000,000, making the plant cost a total of close to $4,000,000. The output of the enlarged mill will be 15 tons of Kraft paper daily, making it as large as the Bastrop mill of the Louisiana Pulp and Paper Mill.

The construction of this unit in this city will make a total of $12,000,000 expended in this section for this industry in Monroe and Bastrop.

In connection with the announcement is announced the sale of over 82,000 acres of timber lands in Caldwell, Jackson, Winn and Ouachita parishes by the Louisiana Central Lumber Company, to the Brown Paper Company. The price paid totals over $500,000.

Announcement of the expansion of the Brown Paper Mill Company at West Monroe was forecast last winter at the opening of the super-power plant of the Couch interests at Sterlington, on the Ouachita river north of Monroe.

At that time it was reported important developments in the paper-making industry would follow the introduction of cheap power in North Louisiana, and there were rumors of impending expansion at the West Monroe mill. It was also reported that the Bastrop Pulp and Paper Company was considering expansion plans.

The Brown paper mill is one of three in the Monroe-Morehouse industrial district making Kraft paper from yellow pine pulp wood. All are supplied with power from the Sterlington power plant, which uses natural gas as a fuel, and is supplemented by hydro-electric power from the Remmel dam, at the headwaters of the Ouachita river in the Western Ozarks.

It was recently announced by the International Paper Company, which owns the Louisiana Pulp and Paper Company with a large mill at Bastrop, that its timber holdings in that section were sufficient to place the Bastrop plant on a perpetual basis of operation. The announcement that the Brown paper mill has purchased 82,000 additional acres of land, in connection with its development program, is considered as an important indication of the future use of Louisiana's cut-over and wooded lands.

International Paper Man Makes Hole in One

While playing over the course of the Belmont Manor Golf Club in Bermuda, recently, George E. Smith, manager of the purchasing department of the International Paper Company, made the sixth hole of 130 yards, in one.

Mr. Smith's partner and two other players on a nearby hole, who happened to see the shot, described it as a perfect play, the ball falling on the green about fifteen feet from the pin and rolling straight into the hole.

Mr. and Mrs. Smith were enjoying a three weeks' vacation at Bermuda at the time.

D. F. Williams, vice-president and general sales agent of the Hudson Coal Company, who was Mr. Smith's partner, tells of the play as follows:

"The drive was up-hill and the green beyond the brow where

GEORGE F. SMITH

it could not be seen. We had a couple of very-interested colored caddies who had taken their position on the brow of the hill before the play started. Mr. Smith, having the honor, drove off and for some little time we wondered what had happened to our boys, who were enthusiastically jumping up and down. When they had quieted down sufficiently for us to understand their colored English we found that they were crying "in de' 'ole' 'In de 'ole.'

"To be honest about the matter, Mr. Smith tried very hard for three weeks to repeat the performance, but his return reservation came too soon."

Papermakers Ask Wage Increase

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., June 1, 1926.—The demands of the members of Eagle Lodge Papermakers for a forty hour week with some increase in wages will not be acted upon for a time. Vice President Frank P. Barry, of the International Brotherhood, who was to come to Holyoke to assume charge of matters connected with the pressing of the desired change in wages and hours is delayed by the illness of his daughter.

Leading manufacturers do not think that the reasoning of the lodge officials is economically sound. Discussion of the proposed wage increase and shorter week will be likely to be "academic," one paper manufacturer stated. The aim back of the proposed changes is admittedly the abandoning of Sunday work. This the manufacturers are not yet willing to agree to as they are now handicapped by many mills both as to hours and wages.

Poller Paper Instruments Insure Accuracy

PAPER TESTER No. 400

Indicates accurately tensile strength in pounds and percentage and stretch in inches and percentage—all in one operation. Temperature makes no difference. It is the "Supreme Court" of all testing machines. No springs to get out of order. No glycerine or rubber discs to replace. All numerals are in English units and not in Continental Metric system.

PAPER SCALE

Indicates ream weight 24x36—480 and 500

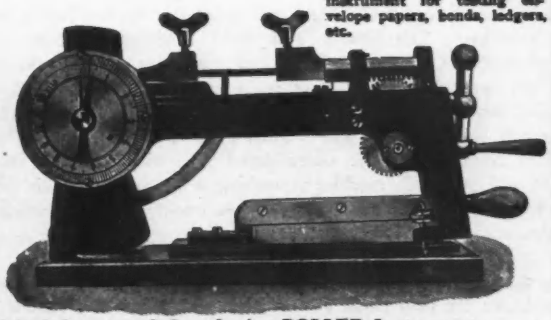
These scales are furnished for weighing a full size sheet, 24x36, or a small piece. Both will indicate ream weight by direct reading. No springs. Special scale for Tissue Papers.

POCKET SCALE

For coarse or fine papers. By weighing a piece 2½x3½ the standard ream weight is accurately shown. Very accurate and reliable. Weighs less than one pound and can be carried without inconvenience.

Folding Endurance Tester

Indicates strength of paper by automatically folding a sample until it is worn through. A very valuable instrument for testing envelope papers, bonds, ledgers, etc.



AUTOMATIC MICROMETER

Measures thickness of board and paper accurately. Best instrument on the market for this purpose.

PAPER TESTER No. 399

Indicates stretch and breaking or tensile strength of paper. Operated by means of gears and screws. No springs to weaken and influence results. This machine is portable, weighing less than five pounds.

Sole Agents for the United States and Canada for POLLER Instruments

THE UNION SELLING COMPANY

PAPER AND TWINE

210 Walnut Street, Cincinnati, Ohio

New York Trade Jottings

F. C. Clark, secretary of the Hawthorne Paper Company, of Kalamazoo, Mich., was in New York on business last week.

* * *

Marquardt, Blake & Decker, Inc., distributors of high grade printing papers, are now established in their new address at 153-155 Spring street, New York. Their new telephone number is Canal 4,567.

* * *

Associate Mills, the Crocker-McElwain Company and the Chemical Paper Manufacturing Company, of Holyoke, Mass., have opened New York offices at 41 Park Row, room 1612, telephone Cortland 1502, in charge of T. W. Harrington and W. S. Cummings.

* * *

R. S. Kellogg, secertary of the News Print Service Bureau and W. G. MacNaughton, secretary of the Technical Association of the Plup and Paper Industry, are attending the summer meeting of the Technical Section of the Canadian Pulp and Paper Association, at Montreal, Canada, this week.

* * *

The largest individual shipment of wood pulp received for several years at the Port of Baltimore arrived on the steamship Annabore on May 27, consigned to Price & Pierce, Ltd., New York. The shipment consisted of 4,730 tons from the Ljunan Pulp Mills, of Sweden.

* * *

It is announced that the partnership of Ogden Brower and Ogden Brower, Jr., under the firm name of Gibbs-Brower Company, has been dissolved and the business taken over by Gibbs-Brower Company, Inc., a New York Corporation, with offices at 261 Broadway. The officers of the new corporation are Ogden Brower Jr., president; Leslie M. Cain, vice-president; and Ogden Brower, treasurer and general manager. The Gibbs-Brower Company, was founded November 1, 1898, by Ogden Brower, Sr., of New York and Monclair, New Jersey, and W. W. Gibbs Sr., of Staunton, Va. In 1907 Mr. Gibbs died suddenly, and Ogden Brower, Jr., entered the business in 1911. Leslie M. Cain has been associated with the Gibbs-Brower Company for the past twenty years. The Gibbs-Brower Company, Incorporated are agents for the Kidder Press Company, Dover, N. H., selling their flat and rotary presses, slitting and rewinding machinery, and sheeters; The Specialty Automatic Machine Company, of Chelsea, Mass., handling their special machinery for the folding box trade; The Hudson Sharp Machine Company, of Green Bay, Wisconsin, for their toilet roll rewinders, napkin folders and creping machines; The Shartle and Bevis Machine Company, of Franklin, Ohio, selling their waxing machines and shredders; and the Paper Converting Machine Company of Green Bay, Wisconsin, handling their napkin folders. They are also paper and pulp mill brokers, being the original brokers of this kind in the United States, and have consolidated this with handling used paper and pulp mill machinery, making a specialty of both cylinder and fourdriner machines, jordans, beaters, pumps, calender stacks, etc.

* * *

A possible physicologic development of a stationery business runs under the firm name of the M. S. Weeker Law Stationery and Paper Company, with offices at 366 and 1440 Broadway, New York. It is "Physicological" because of the spirit attending to this newcomer into the line. The name of the firm takes route in the personality of M. S. Weeker (Maurice S.), now and for twenty years past, a member of the New York Bar. His advent into this business is due to his loss of sight some four months ago, after a period of five years of gradual diminution of the light from his eyesight. The dreadful disability has compelled the abandonment by him of his practice and the selection of the commercial line of "Law-Stationery" was the result of a get together of a great number of his friend-lawyers, who have said to themselves, we must make our M. S. Weeker happy and keep him on the move, even though in tow of a guide and there you are; here is a physicologic possibility of a development of the business which is bound to spell Success. Also Mr. Weeker is not a novice in the business either. From the information obtained he is an old-timer in the paper game, and it is said that he knows paper by the "touch system;" for before his admission to the bar in 1904 he was a regular paper man. And it is this experience that serves him well at this crucial point. The substitute of his physical vision is Sam Haskell, Mr. Weekers partner, who is known in past history, in the days of the Hula Hula Dolls. We are informed that while the capitilization is not very large, there is caution and system inocculated into this little partnership, which is taken to be a strong factor in the successful reaching out of profitable results. Mr. Weeker, the head of the concern, with his mental vision at double speed, is ready to receive those who might be interested in any business entering in the make up of this "physicologically" possible successful, "little affair"—the law stationery business.

Bids and Awards for Government Paper

WASHINGTON, D. C., June 2, 1926.—The Government Printing Office will receive bids on June 9 for 55,000 pounds (65,000 sheets) of various sizes No. 50 chip board.

The Government Office will receive bids on June 4 for 80,000 pounds (32,000 sheets) of No. 2 quality 25 by 30 No. 20 binder board.

Bids will also be opened on the same date for 7500 pounds (75,000 sheets) of 20-½ by 29, 100 white laid antique printing paper.

The R. C. Osborn Paper Company has been awarded the contract by the Bureau of Supplies and Accounts, Navy Department for furnishing several east coast navy yards with 447,500 rolls of toilet paper at $38,350.30 and several west coast navy yards with 405,000 rolls of the same at $33,372.00. Bids for these items were received on May 18.

The Holyoke Card and Paper Company has been awarded the contract for furnishing the Government Printing Office with 5,000 sheets of 22 x 28 four-ply red railroad board at $36.50 per thousand sheets, bids for which were opened on May 17.

Seybold Machine Co. Insures Employees

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 1, 1926.—One of the enterprising moves made by a member of the trade in Dayton was that of the Seybold Machine Company, of which Charles Seybold is president, which recently insured all of its employees with a large insurance corporation, the Travelers. Mr. Seybold has worked in the mill himself and understands the situation about as well as any working man. He rose from the ranks and he is glad to take any action that will benefit his employees, knowing that he himself will be benefited correspondingly. The insurance policies were issued in various sums, depending on the length of service, the amount of compensation, and other circumstances. The protection extends from $1,000 to approximately $5,000, and will prove of wonderful assistance in time of need.

The move was about the most popular one ever adopted by the concern, to hear the favorable comments of the workmen, who appreciate it to such an extent that better and improved working service naturally is expected. However, the broad and liberal policy of the Seybold company always has redounded to the credit of the organization and there was no thought of anything but the performance of a dutiful act on the part of Mr. Seybold when the insurance plan was adopted. The company bears all expenses in connection with the coverage.

EXPERIMENTATION

Is the forerunner of Progress.

Our experimental Paper machines have played a prominent part in the industry's research work.

May we tell you about the two experimental machines now building.

Ask Us

The Pusey and Jones Company

Wilmington, Delaware

PAPER TRADE JOURNAL
ESTABLISHED 1872
With Which Is Combined
PAPER
The Magazine of the Paper Industry
HENRY J. BERGER, Editor

Member A. B. C. Audit Bureau of Circulations

Vol. LXXXII New York, June 3, 1926 No. 22

TAPPI PAPERS 1926

In a volume of nearly 400 pages the Technical Association has published the proceedings of its Annual Meeting together with additional material of great reference value.

Although many of the papers deal directly with improvements in process or with new types of equipment that have been developed, the keynote of the volume is the prevention of waste in the industry as indicated by the leading position given the report of the Committee on Waste.

In the discussions on the papers that took place at the various sectional meetings, which are reported in detail, the same emphasis is given to means by which material now wasted may be profitably utilized. There is also a full session on paper mill waste and its bearing on stream pollution in which an analysis of the sanitary codes of the papermaking states is given. A resolution was adopted addressed to the American Paper and Pulp Association, advising the formation of a national committee by which the activities in the various states in regard to stream purification might be coordinated. This resolution was later approved by the TAPPI and such a committee has been formed.

Developments of new equipment described include a moisture content control for paper, a new pulp screen, a recovery furnace in which the black liquor is burned directly without the formation of black ash and using the heat of combustion to generate steam for process work, the Eastman colorimeter for the measurement of color, and a description of the latest type of soda pulp mill.

There are in addition papers and discussions on various subjects including analysis of materials, an improved method of testing pulp for strength, and a study of different methods of drying paper, as well as others of a mechanical nature such as the identification of piping, an evaporator test code for pulp mills, and the use of higher pressures of steam for power and process work.

The reference material included are the bibliography of papermaking material for 1925, a digest of the literature dealing with semi-chemical pulp and processes in which the soluble sulphites are used as digestion liquor, and a list of over five hundred patents dealing with waste liquors and waste gases in the paper industry.

Following the text there is a very creditably arranged advertising section in which emphasis is given to improvements of equipment and process materials.

The work is distributed gratis to members of TAPPI, the cost being $3 per copy to others.

SWEDISH PULP INDUSTRY PROSPERS

The year 1925 was a very prosperous one for the Swedish wood pulp and paper industry according to Consul General Dawson at Stockholm.

Exports of paper in that year reached the largest quantity ever recorded, the total exports rising from 397,783 short tons in 1924 to 432,770 tons in 1925, as compared with 234,432 tons in 1913. Newsprint exports rose 2.6 per cent in 1925 over the preceding year, paper board 17.5 per cent, and other paper 13 per cent.

Production of wood pulp is reported to be greater than in 1924, but the total exports of pulp during 1925 showed a decline of about 3 per cent under the previous year. It is probable that this decrease is due largely to the increased demand on the part of the local paper industry.

Sweden shipped the largest share of its sulphite and sulphate pulp to the United States, that country taking about 30 per cent of the former and 75 per cent of the latter in 1925. Great Britain was the second largest purchaser of these two classes of Swedish pulp, taking 28 and 6 per cent, respectively, in that year. The bulk of the remainder went to other European paper manufacturing countries. A noteworthy increase is found in shipments of sulphite pulp to Italy whose rapidly growing rayon industry has created quite a demand for pulp in recent years. Shipments of sulphite pulp from Sweden to that country rose from 8,585 short tons in 1913 to 25,745 tons in 1924 and to 39,276 tons in 1925.

Great Britain received 39 per cent of the total exports of mechanical pulp from Sweden in 1925, followed by Norway and France in second and third places respectively.

There has been a steady increase in prices of both mechanical and chemical wood pulp during the past year. The price of bleached sulphite pulp, f. o. b. Swedish ports, rose from 265-300 crowns per metric ton ($3.23-3.65 per 100 pounds) at the beginning of the year to 300-325 crowns ($3.65-3.96) at the close of the year. Easy bleaching sulphite rose from 215-225 crowns ($2.62-2.74) to 235-250 crowns ($2.86-3.04); strong sulphite and strong sulphate pulps both from 195-205 crowns ($2.37.-2.50) to 215-230 crowns ($2.62-2.80); wet mechanical pulp from 50-60 crowns ($0.61-0.73) to 55.-65 crowns ($0.67-0.79); and dry mechanical pulp from 115-130 crowns, ($1.40-1.58) to 140-150 crowns ($1.71-1.83).

There was no change in the Swedish home market prices for news print, kraft wrapping paper, and M. G. sulphite paper during the past year. During 1925 news print was quoted at 260 crowns per metric ton (about $3.17 per 100 pounds), kraft paper of 17 grams in rolls, 580 crowns ($7.06); and M. G. Sulphite weighing 17 grams, in rolls, 530 crowns ($6.45).

SUMMER EMPLOYMENT FOR STUDENTS

With the approach of the summer vacation there are many young men in the technical schools, students in the chemistry and engineering branches, who will be looking for positions in pulp and paper mills where they may earn some money and, at the same time, get some mill experience.

The TAPPI Committee on Training in the Industry, of which Martin L. Griffin, 4 Prospect Place, Taunton, Mass., is chairman, is desirous of assisting both paper mills and the students. The paper mills in providing summer employment have a fine opportunity of securing valuable employes after graduation, who have been trained in their places according to their own practices. On the other hand, the students have a chance of getting valuable experience that is usually a requirement in order to secure a permanent position on completing their course.

By communicating with Mr. Griffin he will be glad to give mills and students the assistance of his committee.

Canadian International Starts Machines

With the present installation, Three Rivers now has eight paper machines, all driven by the General Electric synchronous tie-in type of drives. The last four, however, include some of the more recent developments in this type of drive and utilize direct-connected, synchronous tie-in motors without any cone pulleys or belts. A new application for a paper mill is the use of direct-connected, overhung synchronous motors for driving 12 Nash vacuum pumps used in connection with the new paper machines. Each pump is driven by a 104-horsepower motor.

Besides the main paper machines, there are also installed 16 additional magazine grinders driven by light 2600-horsepower synchronous motors, making a total in the plant of 30 grinders driven by 15 motors with a total rating of 37,600 horsepower. In addition to this, the new equipment for the plant includes a large number of general purpose motors for various uses, bringing the total installed horsepower in motors in Three Rivers up to approximately 50,000 horsepower.

The Canadian International Paper Company has just completed plans for a new paper mill a few miles east of Ottawa, Canada. Four 270-inch Fourdrinier paper machines are to be installed by the latter part of 1926 and, as in the case of the Three Rivers mill, will be driven by the General Electric synchronous tie-in type of drive. The normal speed will be 1200 f. p. m. with a maximum of 1440 f. p. m. Twelve synchronous grinder motors of 2600 horse-power capacity will be used.

The new mill will be operated by hydro-electric power developed on the Gatineau River. Two sites are now being developed and work on the third site will probably commence in the near future. The aggregate capacity being approximately 400,000 kv-a. of this development, 260,000 horsepower will be transmitted to Toronto at 220,000 volts, 25 cycles, over a distance of about 250 miles. The remainder will be used largely at the mill which will operate on 60-cycle power.

Pulp Market Less Brisk in Sweden

WASHINGTON, D. C., June 2, 1926.—Sales of wood pulp in Sweden were somewhat less brisk during the last two weeks of April, according to a report from Consul General Claude I. Dawson, Stockholm, who further states that up to the middle of the month fully 88 per cent of the anticipated output of unbleached sulphite and about 70 per cent of the bleached sulphite had been disposed of. In addition approximately 240,000 metric tons (metric ton—2,205 pounds) of sulphite have been sold for 1927 delivery. Prices continue practically unchanged, quotations c.i.f., English port, being as follows: easy-bleaching sulphite $3.22 to $3.26; strong sulphite $2.99 to $3.01; easy bleaching sulphite, $3.20 to $3.24, kraft pulp, $2.96 to $3.04, and mechanical ground wood $0.81 to $0.83. Dry mechanical pulp is being quoted f.o.b. Goteborg, at $1.82 to $1.88 per 100 pounds. A sale of 30,000 tons of wet mechanical pulp has recently been made to French buyers to be delivered in lots of 10,000 tons during the years 1927 to 1929, inclusive.

Ask Receiver For Colorado Paper Co.

Denver, Col., May 29, 1926.—Suit for appointment of a receiver for the Colorado Pulp and Paper company, and for an injunction to prevent its officers from diverting or wasting the funds of the institution, has been filed in the District Court of Adams county in behalf of Charles B. Myers, who claims to own the controlling interest in the organization.

The suit, filed by Attorney Ernest Morris, is based on charges that the company is insolvent and that for eight months its affairs have been mismanaged by Joseph Buchhalter, president, and Morris H. Block, manager.

The suit is directed against the Colorado Pulp and Paper company, the Intermountain Paper Stock company, Joseph Buchhalter, Moses Buchhalter, Morris H. Block, Maurice H. Levy, Edward I. Levy, the International Trust company, Harry C. Davis, Harry S. Silverstein, Wilbur F. Denious, I. Rude and Stanley T. Wallbank. Most of these individuals figure in the case only as directors of the company.

In the action Mr. Myers set forth the claim that he is owner of 132,562 shares of preferred stock out of 250,000 shares issued and 105,720 shares of common stock out of a total issue of 250,000 shares.

The company, it was charged, has been purchasing paper from the Intermountain Paper Stock company, of which the two Levys are officers, at excessive prices.

Harry C. Davis, attorney for the Colorado Pulp and Paper company, declared that he had heard of the suit indirectly. He characterized the charges as tommy-rot and declared that the suit for receivership will be resisted to the end.

"The company," he said, "is not insolvent. It was bought in at a receiver's sale and since then the production has increased by one-third. The machine has been overhauled, rebuilt and place in perfect order. The company is going better than it ever has done. An experienced outside paper man has been placed in charge and everything is going fine. Mr. Myers himself is on the board of directors and has had his voice in the management."

International Increases Mill Wages

GLENS FALLS, N. Y., May 29, 1926.—Notices were posted this week in all mills of the International Paper Company in the Upper Hudson Valley announcing an increase in wages for certain classes of mill workers. The increase will affect several hundred workers in the Glens Falls, Fort Edward, Corinth and Ticonderoga mills. The action of the company is entirely voluntary as employees had made no request for increased pay. This will bring the wage scales in the I. P. Mills to the same levels as in mills operating under agreements with the International Brotherhood of Papermakers where wage readjustments were recently effected.

Machine tenders, backtenders, and third hands in the International plants at Glens Falls, Fort Edward, Corinth and Ticonderoga will benefit by the company's action. At the Corinth plant employees on six of the ten machines receive increases. These are governed by the size of the paper machines on which the men are employed and range from one to seven cents an hour for machine tenders, from two to seven cents an hour for backtenders, and from two to three cents an hour for third hands.

New wage schedules and classification on workers adopted recently by many mills after conferences with officials of the International Brotherhood of Papermakers, in some instances call for reduced wages for certain jobs, while other employees received increases from two to seven cents an hour. In announcing the increase for employees of the mills of the International Paper Company, the notices stated that no reductions would be made. Approximately 2,500 workers are employed in the I. P. Mills in this city, Fort Edward, Corinth and Ticonderoga and it is estimated that about one-third of these will receive higher pay under the new schedule.

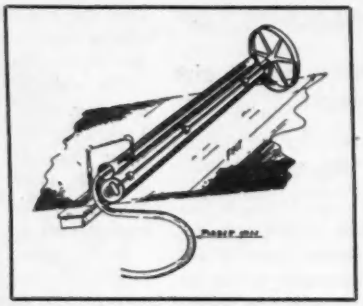
The LANSING Felt Washer

PATENTS PENDING

In use in many of the largest Tissue, Board and Insulating Paper Mills.

One user says:

We have had an increase of 66% in life of the felts, a decrease of 67% in running time lost on account of wet felts and 4% increase in total paper produced.



Another user says:

We are pleased to report that we have one of these felt washers on top felt and it is giving excellent results. We are now corresponding with Mr. Lansing in regard to additional washers.

This is one of the greatest inventions f or the benefit of paper manufacturers.

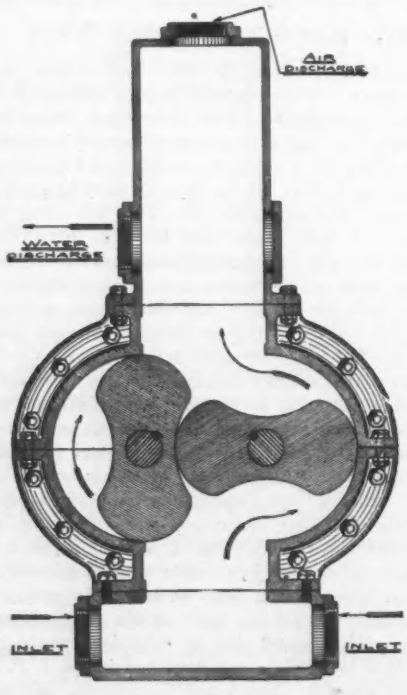
It extends the life of the felt from 25 to 100%. It costs practically nothing to run as it is attached to the journal of any felt roll on machine.

One mill has installed 4 and another 8 machines after thorough trial.

We can refer you to all mills where our felt washer is installed.

GILBERT J. SCOFIELD CO., Inc.

683 Broadway **Albany, New York**



Positive Suction

will speed up

Production

The action of the impellers of a Connersville Cycloidal Vacuum Pump cause it to produce a *positive suction.* It is impossible for the impellers to rotate without drawing air into the pump. Consequently, as the paper covers the inlets to the suction rolls or flat boxes, the vacuum becomes higher, because of the "pull" from the action of the impellers, drawing the moisture away more quickly.

You can turn this *positive suction* to your advantage in increasing the production of your machines.

The Connersville Blower Co.
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CONNERSVILLE, IND.

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Blowers · Gas Pumps · Meters · Cycloidal Pumps

Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G.MacNAUGHTON, Secretary

Evaluating Pulp*

By Frank D. Libby,[1] Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.

Points of Maximum Strength

Too often the only thing thought of in testing pulp is how much moisture it contains. We all know that some sulphite pulps are stronger than others, but do we all know how much stronger and the variation in each grade. You probably at your plant have had the problem of getting the same strength from the same furnish on different runs, although the beating, jordaning and machine conditions seem to be identical. During the past year at our mill we have put in the necessary equipment for studying the variations of strength in our sulphite pulps. We first decided to use the ball mill, making the tests as outlined by the Technical Association. We used 100 stones weighing 10 lbs. and charged 90 grams of bone dry pulp and 200 grams of water, running for the designated time intervals of 20 minutes. After forming the sheets they were air dried, trimmed, weighed and burst. The sum of the bursting strength tests divided by the total weight of four sheets, which should be 10 grams, gave us a result known as the strength factor. We decided on this method as from what we could learn it gave a true indication of what we could expect for pulp characteristics, with the further advantage that it was most generally used and that conditions could be more easily duplicated than in the other methods.

The points of maximum strength obtained by our tests in the ball mill fall very closely in the same order that we have experienced in the actual machine runs. Also in this work we made freeness tests which have an important relation to the manufacture of the papers we make.

Installed Small Beater

While completing this work we installed a small beater with controllable bedplate as additional equipment to use as a routine test. We then substituted it for the ball mill in preparing the pulp. In the beater we make one run and take out samples for the sheets at 20 minute intervals, leaving the rest of the procedure the same to obtain a comparison between the two methods. The beating curves are practically the same but develop more slowly and have a lower maximum point than with the ball mill. This method speeds up the work so that it is much more practical for a laboratory that has several pulps to test each day.

May Be Still Further Shortened

These strength tests may be still further shortened by using a steam drier instead of drying by air, the final drying being accomplished by an electric oven at 100° C., and the sheet burst immediately after removing from the oven. The ball mill tests may also be shortened by using one of a larger volume with a smaller number of stones, 75 to 77, with the same weight as the 100 stones and the volume of water increased to 3000 grams instead of 2000 grams. This gives enough of the mixture in the mill so that it can be opened and sampled at 20,-40,-60, and 80 minute intervals. After forming and pressing the sheet, it is dried as I have just outlined.

Tests by R. N. Miller

I intended to speak of the results obtained by this method at the Forest Products Laboratory, but an article by R. N. Miller appeared in PAPER TRADE JOURNAL, April 22, 1926, so it is sufficient to say that he finds from his test that he can connect up his work with the beater room and show in the laboratory just what pulps will go to pieces under the roll, those that will develop strength with beating, and those which hydrate rapidly but give a paper with a raw appearance and low folding test.

Results From Testing Two Pulps

I wish to call your attention to the results which I have from testing two pulps. One which we will call (A) has a strength factor of 200, 204, 202 and 150 at 40, 60, 80 and 100 minute intervals. One which we will call (B) has strength factor of 220, 243, 257, and 245 for the same intervals. Pulp (A) does not develop practically no strength through beating and when it starts to drop off in strength, it falls very rapidly, while (B) is a different type of pulp which we can expect to develop by beating. These were from the ball mill tests. The beater curves are practically the same but with a longer sweep lower on the chart. Some of you who do not beat to develop strength will be only interested in the first points, which is another method of pulp testing giving you the initial strength and an indication of the felting qualities of pulp.

Summary

To summarize:

1. Through these tests we are able to classify pulps in the various groups and can expect the same quality of paper from these pulps in the group.

2. We can check the same grade of pulp for variation expecting the pulp manufacturer to furnish pulp within certain limits. This leads to more standard quality of paper.

3. We can expect to produce a sheet of definite strength and characteristics from the various pulps as shown by their beating curves.

4. It also gives us a line on new pulps submitted to our purchasing department, thereby eliminating the guess in buying pulp.

*From an address before a joint meeting of Cost and Technical men held by the Cost Association at Kalamazoo, Mich., April 21, 1926.

[1] Formerly Chemist, Forest Products Laboratory, Madison, Wis.

Roe's Chlorine Number and Relation to Per Cent Lignin Determined by a Modified Halse Method

By G. P. Genberg and T. Jonsson, Fraser Companies, Ltd.

In the PAPER TRADE JOURNAL of October 9, 1924, was published by R. B. Roe of the Paul Sorg Paper Company a detailed description of a new method for the determination of the chlorine absorption by unbleached sulphite pulp. This method consists of a direct measurement of the volume of chlorine that is absorbed by a certain amount of pulp of a predetermined moisture content, during a certain length of time. In the above mentioned publication, the method is described in detail, technically as well as practically, and we do not deem it necessary to go into the method,

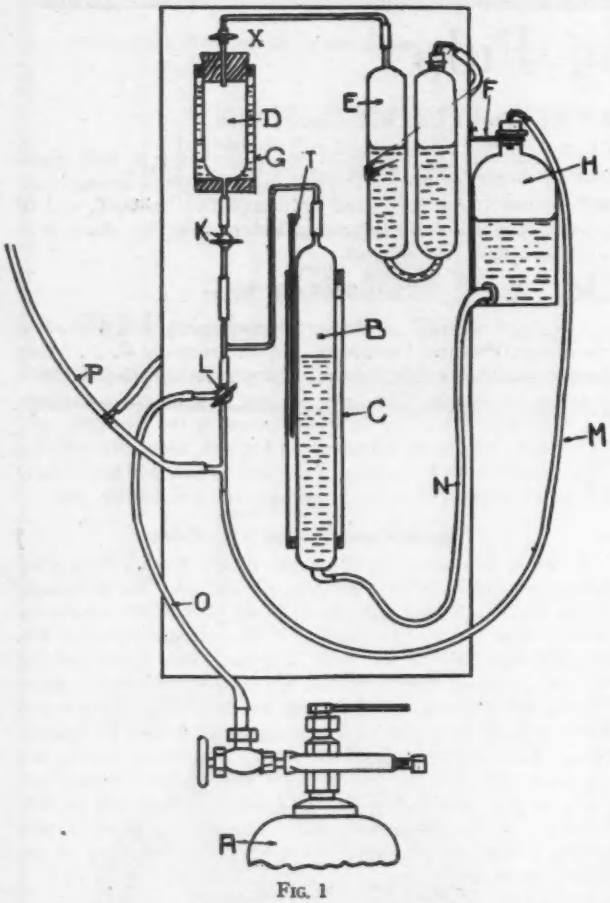

FIG. 1

but refer to this article, as our scope is only to make known a few observations and results from the application of this method.

In order to utilize the chlorine absorption tester for daily routine purposes, it was first necessary to arrange an apparatus suitable for a mill laboratory, which would fulfil the demands of stability and simplicity in operation. For this purpose all the parts of the tester were mounted on a 12 x 22-inch vertical wooden support, which was fastened with metal clamps to the wooden support and was made very easily to manipulate by this arrangement. All the glass piping is capillary tubing and therefore the length is not of particular consequence. The reason for the (S) formed tubing from the burette (B) (see Fig. 1) to the cocks (K) and (L) is in order to obtain a more compact form of the apparatus, which otherwise would be unnecessarily long and difficult to manipulate.

TECHNICAL SECTION, PAGE 265

Through the arrangement of the rubber tubing a practically closed system has been obtained. In this way, the chlorine gas is prevented from polluting the air in the laboratory and special arrangements with fans, etc., for ventilating the room are unnecessary. Besides this advantage a closed system will make it possible to keep a certain gas volume above the exposed liquid level in the containers (H) and (E) while this solution will not have to be saturated with chlorine. The only occasion when chlorine gas will escape is when there is a change of the sample in the absorption vessel (D) which has to be blown free from chlorine gas between every determination. The arrangement of the apparatus is shown in the drawing, Fig. 1, and the photographs, Figs. 2 and 3.

Technique of the Test

The technique of the test is, in general, as follows:

After placing the sample, which is prepared as prescribed by Roe, in the absorption vessel (D) the cock (K) is opened, the bottle (H) is lowered so that the liquid level in (E) reaches the mark when (K) is closed. The aspirator bottle (H) is now raised and the gas mixture in (B) is forced out to the three way cock (L) and the tubing (P) to the atmosphere. The cock (L) is now changed so that (B) can be filled with chlorine from the chlorine cylinder (A), which for the sake of convenience is placed under the table. The burette (B) is preferably at first only filled partly, which volume is expelled through (L) and (P) after which a complete filling of (B) is made. The zero point is adjusted and quite naturally the liquid level in (B) and (H) shall then be in level. The cock (L) is now closed, (K) is opened at the same time as the time is noted, and the bottle (H) is hung up on the hook (F) which is placed so that during the absorption time the liquid levels in the two parts of the vessel (E), on one hand, and in (B) and (H), on the other, will be of about the same height. By this arrangement any eventual pressure difference in the absorption vessel is eliminated. The solubility of the gas changes with the pressure, and a change in the pressure condition can therefore give causes for error. Another advantage is that a defective rubber connection would not be of any serious consequence if no pressure differences prevail during the 15 minutes of the test. On account of the attack by the chlorine on the rubber tubing it is very difficult to keep all connections free from leaks. Even if it is wrong in principle, we have to contend with the fact that leakage will occur from this source and by the arrangement indicated any error on this account will be prevented.

We therefore only need to hang up the levelling bottle (H) on its hook and leave the apparatus to take care of itself during the 15 minutes of the test. After this length of time (H) is lowered, (K) is closed when the level in (E) reaches the mark. The volume consumed chlorine is now read in the burette (B). The temperature in (B) is read on the thermometer (T) (Fig. 1) and everything is now ready for the next test. Even if a new determination is not done immediately, the gas mixture in (B) should be expelled and new gas filled from the cylinder. The reason for this is always to have chlorine gas above all liquid levels in the apparatus in order to keep the solutions saturated with chlorine. For the same reason, the open part of the vessel (E) is preferably connected with a tubing and a (T) with the tubing (P). Recently the connection between (D) and (E) has also been equipped with a two way glass cock (X) which is closed before the rubber stopper to the vessel (D) is taken out. In this way, the level in (E) is kept at the mark during the time (D) is cleaned and a new sample put in. When the stopper again is put in place, the stop cock (X) is opened and only a minor correction of the liquid level in (E) has to be made. The advantage of this arrangement

is that a chlorine-air mixture in (E) is avoided, which otherwise must first be pulled down in (B) before each test, and from there be expelled through (K) and (P). The amount of chlorine in this gas mixture will attack the sample in the absorption vessel during the time the burette (B) is emptied and filled with fresh gas. Many of the changes made might appear to be of a negligible importance, but as they all serve to simplify the manipulation and save time in the operation of the chlorine absorption tester they are well worth considering.

Roe is emphasizing that the directly read gas volume is quite naturally not the chlorine absorbed by the pulp itself. A large amount of the chlorine is dissolved in the moisture of the pulp, and a correction for this amount has to be made. In order to determine this volume, blanks were made, using residues from alpha cellulose determinations, filter paper, purified cotton, etc., and an average figure of the chlorine absorption for these fibers containing the same amount of moisture as in an ordinary test was found to be 1.04 per cent or practically 1 per cent. This figure deviates considerably from the 0.4 per cent mentioned by Roe. As the solubility of the chlorine in water varies from 460 to 100 times the volume at a variation in a temperature from 0° to 60° C., the

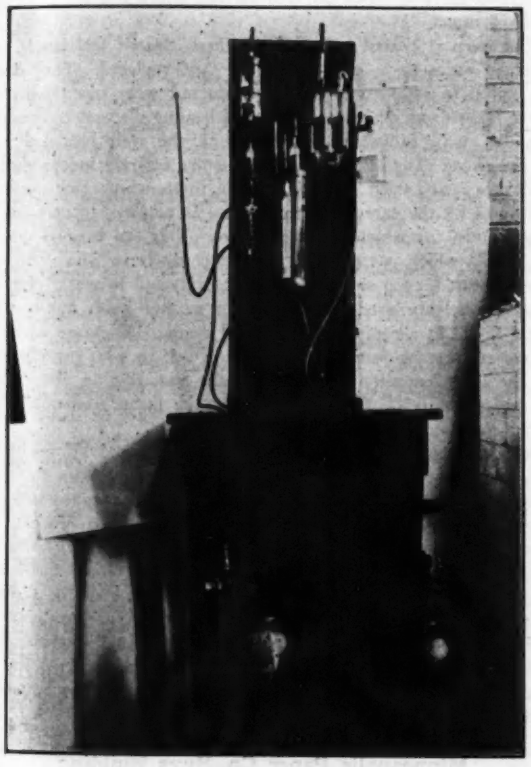

FIG 2

moisture in the pulp is not by far saturated with chlorine. If the temperature is different in the absorption vessel this might be an explanation of the diversion between the blanks.

Roe concludes his article with an assumption that the volumetric method could be utilized to advantage for the study of lignin content. A pulp of higher lignin content needs more chlorine for the same degree of chlorination compared to one of lower lignin content. In order to study the relation, that would prevail between the lignin content and the chlorine consumption as measured by Roe, we have made a number of analyses of foreign as well as domestic grades of sulphite pulp, for chlorine absorption and lignin content.

In order to determine the lignin we have made use of the Halse method[1] which we have modified to some extent in order to suit the conditions. According to this method the cellulose in the pulp is hydrolized by a mixture of hydrochloric acid and sulphuric acid and the unattacked lignin is afterwards separated. In this case we had to compare sulphite pulps of widely different contents of

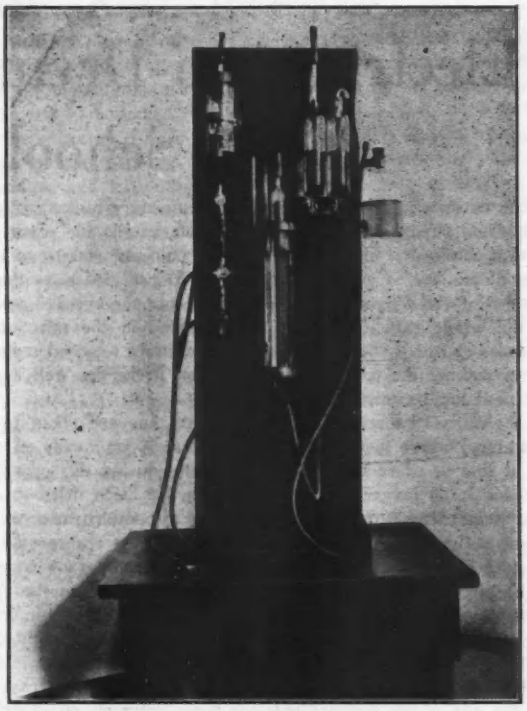

FIG. 3

lignin and of different dryness and pressing and it was found difficult to use the Halse method in its original form, as published, and obtain the uniformity and completeness in the hydrolization which was desired. To obtain a more rapid hydrolization and a complete separation of the lignin, a few minor modifications were made to the method, which is used as follows:

One gram of air dry pulp is placed in a wide neck bottle. Fifty cc. concentrated hydrochloric acid (38 per cent HCl) is added, and when the paper has been completely wetted by the acid 10 cc. concentrated sulphuric acid is carefully added. The bottle is shaken several times and is then allowed to stand for one hour at about 40° C. and then over night at room temperature. The solution is diluted with water, transferred to a 2,000 cc. flask, and made up to a volume of about 1,000 cc. The solution is heated to boiling for one hour under reflux condenser and allowed to stand until all the lignin has settled out. The insoluble residue is filtered off on a porous crucible (alundum R. A. 98), thoroughly washed with hot water, and dried at 105° C. to constant weight.

LIGNIN DETERMINATIONS AND CHLORINE ABSORPTION TESTS

Sample No.	Corrected Chlorine No.	Lignin %
1	7.92	8.84
2	7.61	7.65
3	6.81	7.05
4	6.75	7.25
5	6.74	7.01
6	5.95	6.92
7	5 19	5.55
8	4.91	4.60
9	3.95	4.32
10	3.68	3.12
11	2.54	3.85
12	2.37	2.60
13	2.33	3.35
14	2.27	2.24
15	2.10	3.70
16	1.70	2.60
17	1.42	1.02
18	0.06	0.00

[1] Paper Trade Jour., April 16, 1925.

The table covers the result of the lignin determinations and the chlorine absorption tests of the various grades of pulp. After the reduction of 1.0 per cent we obtained values for the chlorine absorption which are directly comparable with the lignin content. That the chlorine number and the per cent lignin in some cases get the same numerical value is no doubt only a coincident, but our results show that Roe's chlorine absorption method can be used for a direct determination of lignin even for pulps of very different contents of lignin.

We are also convinced that the accuracy and simplicity of this method is not surpassed by any method used at present for the determining of lignin in sulphite pulp.

Electric Pulp-Drying Oven Designed at the French School of Paper Making*

It is extremely important to know the moisture content of pulp, both when buying the pulp and when determining the paper production obtained from it. In testing the pulp, samples taken from a small number of packages from 2 to 10 per cent according to the size of the shipment are used to find out the average content of the whole shipment. The care required in the selection of the bales or rolls to be sampled and the accuracy required in weighing in making the moisture determination itself, are well known and need not be emphasized.

As soon as the samples have been cut, they are taken to the laboratory, where they are weighed. There is practically no danger of loss or of re-absorption of moisture during this operation. But this is no longer true after the pulp has been dried to constant weight at 100°C. Dry cellulose is extremely hygroscopic and cannot be weighed accurately in the air; yet, the reabsorption of moisture frequently is overlooked and the dry samples are weighed in the air. An attempt is sometimes made to reduce the error by weighing the sample as soon as it is taken out of the oven; but the sample is then so hot that it causes an up-draught over the balance-pan, thus introducing another error in the weighing.

The speed with which these manipulations must be carried out and the size of the samples preclude their being placed in tightly closed boxes which could be allowed to cool in a dessicator.

The difficulty can be overcome by weighing the sample without taking it out of the oven, in other words, by placing the scales inside the oven. A number of laboratory equipment makers have been doing this for quite a while, and we find ovens on which is mounted a balance with one of the pans inside, carrying the sample during the whole of the test. The other pan is outside and carries the weights. The operation can thus be followed, and stopped when the sample ceases losing weight.

This method is excellent when there is but one sample. But when there are several, as is most often the case, as many scales (and therefore as many ovens) are required as there are samples to be dried at the same time. This is excessively expensive, and requires a large amount of room; and moreover the power consumption would be high, about 2.5 kilowatts per oven. It would be possible, also to dry the samples partially in ovens not equipped with scales, and to finish the drying in a smaller number of ovens with scales. The first costs would be lower, and the power consumption could be reduced to about 0.35 kilowatt per sample, but the manipulation would be more complicated and result in considerable loss of time.

We have designed for the Pulp Testing Bureau of the Grenoble Chamber of Commerce, which is affiliated wih the French School of Paper Making, a pulp-drying oven which is based on the principle of weighing inside the oven, but in which we have overcome, or at least very greatly reduced, the difficulties mentioned above.

We adopted a cylindrical oven. The samples are contained in perforated aluminium baskets, all of the same weight, which are placed circumferentially on a round perforated shelf which can be rotated about its vertical axis. The scale pan is in the center and the basket containing the samples can be pushed on to the pan or pulled off it by means of a rod which is manipulated from outside.

In the oven which is in use at the Grenoble Testing Bureau, ten samples are placed on the shelf; but it would be possible to put more without increasing the diameter of the oven. To increase the capacity of the oven a number of shelves are provided, placed vertically over one another.

The figures give a very good idea of the instrument. The height over all is 1.50 meters, the outside diameter 1.35 meters, and the inside volume about 1,300 cubic meters. With these dimensions there is room for five shelves, which can therefore hold fifty samples.

The oven is heated by means of three electric resistances, constructed so as to be easily taken out and replaced. They cannot be heated to redness, so that they do not wear out rapidly and there is no danger of fire. A central heating element compensates for the small radiation losses through the well insulated walls of the oven. The other two elements are entirely independent of each other, and each one has its own thermostat which automatically cuts off the current or turns it on as required to maintain the temperature for which the oven is set. This can range from 90° to 105°C., which is the maximum temperature to which the oven can be heated, even should the thermostats fail to work. Couprie thermostats [1] are used, which contain neither glass nor mercury but a liquid in a perfectly tight metal casing. They are very sensitive, and at the same time stand up well in use; and, in spite of the large capacity of the oven, the variation in temperature is only about 0.5°C. above and below the mean temperature for which the thermostats are set.

It takes about two hours to heat the oven from 15° to 100°C., and the power consumption is 4 kilowatt-hours. When the maximum temperature has been reached, the power consumption is about 1 kilowatt, or about 0.02 kilowatt per sample. Finally, we have observed that on account of the evenness of the heating the drying takes place more quickly than in the ordinary gas-heated ovens, and we have never observed any scorching of the samples.

It is thus seen that this instrument allows of determining the moisture content of pulps more accurately than heretofore, and with a saving of nearly 50 per cent in the time required for the manipulations. It was made by Mr. Couprie, instrument maker, of Lyon.

* Translated from *Le Papier* xxviii, 1303-1305, December 1926, by A. Papineau-Couture.

[1] Made by Couprie, 7, quai Claude-Bernard, Lyon, France.

Minneapolis Paper Co. Buys Building

[FROM OUR REGULAR CORRESPONDENT]

Minneapolis, Minn., May 17, 1926. The Minneapolis Paper Company, 400 S. 5th street, announces the purchase, on May 1, 1926, of the five story reinforced concrete building which that concern has occupied since its construction in 1903.

The building is one of the first reinforced concrete structures erected in Minneapolis and at the time of construction there was considerable comment in building circles as to the soundness of reinforced concrete in large buildings. The building today however is in first-class condition in every respect, showing that reinforced concrete is a very satisfactory type of construction.

The officers of the Minneapolis Paper Company are: E. J. Stilwell, president; L. R. Boswell, vice president; E. C. Prewitt, secretary.

Antifriction Bearings

A Summary of Their Economy on the Fourdrinier Machine

By Ed. Wright, Mechanical Engineer, Fitchburg Paper Co., Fitchburg, Mass.

When our No. 7. machine, a 156-inch fourdiner, was installed four years ago it came equipped with Skayef ball bearings on both constant and variable speed shafts, on table and breast rolls, on wire, felt, drier felt and slitter frame rolls, and on wire, press, drier and calender stack drives. In fact the whole machine was equipped with ball bearings except on press and drier rolls. A total of 344 Skayef ball bearings are on this one machine.

TABLE I

SKAYEF BALL BEARINGS ON NO. 7 MACHINE

Part of Machine	Number of Bearings
Constant speed line shaft	7
Variable speed line shaft	20
21 Table rolls	42
1 Breast roll	2
5 Wire rolls	10
30 Felt rolls	60
79 Dryer felt rolls	158
1 Wire drive	4
3 Press drives	12
1 Dryer drive	15
2 Calender stack drives	8
3 Slitter frame rolls	6
Total number of bearings per machine	344

The many operating advantages and the economy of ball bearings were so quickly demonstrated by this machine that we soon equipped No. 6, 110-inch machine with Skayef ball bearings on the table rolls, felt rolls, and the constant speed line shaft, and now have ordered complete equipment for the wet end of No. 5, 90-inch machine.

The ball bearings on No. 7 machine have reduced lubrication costs, practically eliminated bearing maintenance, increased the life of the wire, and reduced power consumption.

At present one regular man, on the day shift, oils and greases the bronze and babbitted bearings on this machine and keeps it clean, most of his time being spent in cleaning. The small Skayef bearings on the wire and felt rolls and on the table rolls, are packed with grease every three months while the larger bearings on shafts and drives are packed every six months. Two men grease all the ball bearings in three 8-hour days. If the machine were equipped with babbitt and bronze bearings we would use six quarts of oil per day, and would be forced to put on another oiler.

On No. 6 machine we repair at least one babbitted bearing per week on the variable speed line shaft and on the drives. On No. 7 machine where all these bearings are Skayef we have not yet repaired a single bearing. In four years, however, we have replaced twenty of the small table roll bearings while run in water. On No. 6 machine the table roll bearings are of a later type and do not come in contact with the water. These have caused us no trouble.

The average life of a wire is 21 days on No. 6 machine equipped with ball bearings on the table rolls. On No. 5 machine, of approximately the same size, the average life is 16 days. This is partly accounted for by the fact that with ball bearings, the table rolls always turn freely and evenly, so that the wire never drags over a roll.

A wire for No. 7 machine costs $464.75. On the basis of the length of life of wires on No. 5 and No. 6 machines, the ball bearings on No. 7 save 4.6 wires per year at a cost of $2,137.85. Even more important than the direct savings in the cost of a wire is the saving in productive time.

The variable speed line shaft, nearly 175 ft. long, has 20 Skayef bearings and is driven by a 190-hp. motor, at speeds from 80 to 400 r.p.m. The constant speed shaft is 45 ft. long, has 7 bearings and is driven by a 100-hp. motor at 200 r.p.m. Two bearings on this shaft have given out because they were too light.

Although we have no means of accurately determining the additional power required by this machine without ball bearings, yet it should be safe to figure 25 per cent of the present average of 180 kw. consumed by the machine.

The difference in power required is clearly shown by the fact that, mounted in ball bearings, the breast roll turns with slight pressure and balances itself when coming to rest, while a large stillson wrench is needed to move a roll mounted in babbitted bearings. When the long, variable-speed line shaft was lined up in its 20 Skayef bearings, ready for applying belts, it was easily turned by hand.

The items mentioned have been evaluated, showing a saving of $1,274.40 in lubrication, $1,075,07 in maintenance, $2,137.85 in wire cost, and $5,490.72 in power, amounting to an annual saving of $9,978.04. These savings do not take into consideration the reduction of loss in productive time when putting on a new wire. Furthermore, because the machine runs so much more evenly and smoothly with ball bearings, the paper manufactured is more even in quality and finish.

TABLE II

SAVINGS EFFECTED BY SKAYEF BALL BEARINGS ON NO. 7 MACHINE

Lubrication:			
Cost per year with bronze and babbitted bearings:			
6 qts. oil per day x 310 days x 40c per gal.	$186.00		
Additional man—310 days x $4.20 per day	1,302.00	$1,488.00	
Cost per year on Skayef bearings:			
900 lb. grease x 12c	$108.00		
Labor—24 days x $4.40 per day	105.60	213.60	
Saving per year			$1,274.40
Maintenance:			
Cost per year for babbitted bearings on line shafts and drives (1 bearing repaired per week):			
Labor to change bearing—4 hr. x 55c	$2.20		
Labor to rebabbitt bearing—8 hr. x $1.00	8.00		
Babbitt metal—15 lb. x 60c	9.00		
Total cost per bearing	$19.20		
Total per year—$19.20 x 52 bearings	998.40		
Additional maintenance	200.00	$1,198.40	
Cost per year on Skayef bearings:			
5 Table roll bearings @ $14.00	$70.00		
2 Bearings on constant speed shaft x $80.00 ÷ 3 yr. life	53.33		
Total including labor		123.33	
Saving per year			$1,075.07
Wires:			
Average life on No. 6 machine, Skayef equipped	21 days		
Average life on No. 5 machine, bronze bushings	16 days		
Wires per year on above basis:			
310 days ÷ 21 days		14.8	
310 days ÷ 16 days		19.4	
Difference		4.6 wires	
Saving per year—4.6 wires x $464.75			$2,137.85
Power—25% x 180 kw. x 24 hr. x 310 days @ $0.0164			5,490.72
Total saving per year			$9,978.04

Summary

Paper company bought Fourdrinier equipped with Skayef ball bearings.

A total of 344 ball bearings on 156" machine.

Advantages resulted in use of Skayefs on two smaller machines.

Have reduced bearing maintenance and lubrication cost.

Have reduced cost of power and wire replacements.

Babbitted line shaft bearings failed, one per week.

Skayefs on same shaft in No. 7 not repaired in four years.

Ball bearings increased wire life from 16 to 21 days.

Save 45 kw. due to less friction.

Annual saving on one machine $9,978.04.

Sabai Grass

By Tekumalla Venkajee, B.A.

The staple material for papermaking in India until the advent of bamboo as its rival has been sabai grass, which grows abundantly in many parts of Northern India and which has qualities closely resembling those of esparto.

As W. Raitt, the fiber expert for the Indian Government aptly remarks, "Sabai grass is a very superior grass and the best raw material for paper. It is better than bamboo and is as good as anything in the world. The only thing that can compare with it is esparto used by the English paper makers. Like esparto papers of superior grade, sabai paper is also strong, durable and stands wear and tear. It gives good bulk for its weight."

The difficulties in growth, where it is mixed with other vegetation, add not a little in the cost of production due to the enormous labor required for the separation of such foreign material. Unless removed, this would cause specks in the paper and spoil its appearance. However, sabai grass has a strong hold in many of the Indian Mills and is considered the best material in India.

Opinion is varied as to the abundance of the supply of sabai grass, and though it will probably have to give place to bamboo as its successful rival, it is still the primary raw material.

Sources of Supply: It is found abundantly in the extreme northwest of the United Provinces in India where about 15,000 tons are annually available. Nepal Forests form the next important center of supply, where about 11,000 tons are available and nearly 15,000 tons are available in the Sahebgunj Forests in Bihar and Orissa and in some places in the Rewa State.

Cost of Production: Analysis of the cost of sabai grass.

1. Rent or Royalty	Rs.	47.44 per ton
2. Cutting, Carting and Baling		28.38 per ton
3. Railway Freight		13.64 per ton
4. Other Charges		27.97 per ton
		117.43

These are the charges paid at a minimum in the Titaghur Paper Mills during the year 1923-1924, one ruppee being equal to a third of a dollar. But taking the results on the average from all the mills we find that the cost of cutting and baling lies between Rs. 22 and Rs. 26 a ton, and the railway freight is Rs. 9 a ton, it can be taken on an average that the grass at the mill site costs about Rs. 50 a ton, which is equivalent to Rs. 125 per ton of pulp or paper, as can be seen in the table below:

Details	Cost per ton of grass	Cost per ton of pulp or paper
Cutting, carting & baling	Rs. 25	Rs. 62.5
Railway freight	10	25.0
Rent or royalty	10	25.0
Other charges	5	12.5
	Rs. 50	Rs.125.0

Experiments in General: The grass must be hand picked to make it free from all foreign matter and then cut into pieces of about ½ cm. long (¼ inch). On treatment with Caustic soda, etc., for the determination of its constituents, we get the following analysis:

Constituents	Experiments percentage on the raw material 1.	2.	3.	4.	5.
Moisture (adjusted to)	10.00	10.00	10.40	8.20	9.90
Group 1. Water solubles	13.00	10.56	14.80	12.10	14.20
Group 2. Pectose matter	26.00	27.71	24.60	33.20	26.40
Group 3. Litneous matter	5.47	5.58	8.80	4.90	6.40
Cellulose	45.53	46.15	41.40	41.60	43.10
	100.00	100.00	100.00	100.00	100.00
Percentage of Cellulose on Absolutely Dry Grass	50.58	51.27	45.00	45.31	47.83

Resistant Cellulose: On mercerization, a sample of the grass gives the following:

Resistant Cellulose %	79.57
Non-resistant Cellulose %	20.43
	100.00

So the fibrous yield will be about 37 per cent on about 46 per cent of cellulose. Consumption of Alkali is found as 2.26 per cent for Group 1, 5.60 per cent for Group 2, and 3.90 per cent for Group 3.

On a larger scale in the laboratory in the autoclave the following results give a better yield and show the value of the grass for paper making. In the autoclave digestions the treatment of the grass is kept at about two temperatures as cooking maintained at 60 lb. pressure for 1 hour and then at 40 lb. pressure for 2 hours, thus making a total period of cooking for 3 hours, using 15 per cent caustic soda with a density of 6 per cent when it is observed that about 10.5 per cent of MaOH is consumed giving an unbleached yield of pulp of about 40.63 per cent.

With a bleach consumption of 5 per cent it gives a yield of about 37 per cent (a full white sample of bleached pulp being produced.) The same yield of 37 per cent of bleached pulp will be 37.15 per cent when treated under Raitt's system and the bleach consumption will be reduced from 5 to 2.46 per cent. Under Raitt's system of digestion, besides the color of bleached pulp in the latter case will be "brilliant white" as against "full white" in the former case.

The grass compares very well with esparto as can be seen in the following comparison of both the grasses under the same conditions of treatment.

	Esparto	Sabai
Period of cooking hr.	3	3
Pressure, lib.	40	40
NoOH used %	15	15
Liquor density %	6	6
NaOH consumed %	12.18	10.50
Bleach Consumption %	4.00	5.00
Unbleached yield %	38.78	40.63
Bleached yield %	36.47	37.00

Thus we have observed that sabai forms an important part in the manufacture of paper and the remarks of The Calcutta Paper Trader's Association on the paper made from Sabai are worth mentioning here: "It is a strong and durable paper that stands wear and tear; it is bulky in proportion to weight; and the paper sold as printing paper can also be used as a writing paper. We know of no papers made by any mill in the world which for that price, or even near that price can give the same service, except that its finish is poor, surface spotted, dirty and uneven and outturn not uniform and not dependable and the colour is apt to deteriorate rapidly."

Waste Sulphite Liquor

SPECIAL INQUIRY NO. 46

A member writes:

The adhesive properties of waste sulphite liquor have induced us to consider getting suitable equipment for the concentration and to use it as an adhesive in the packing department instead of silicates of soda, dextrin or glue now employed. Before making a decision, I would appreciate your circularizing the members and others for a discussion of the subject to get their opinions and the benefit of their experience.

1. Kind of equipment used for concentration. (Please supply sketch if convenient.)
2. Preliminary treatment, if any.
3. Amount of steam used.
4. Degree of concentration,—degrees Be. or per cent solids.
5. Indicate if used for making paper cores—for pasting wrappers.
6. Give an estimate of savings effected and its relative satisfaction in use compared with other adhesives used.

As it is known that many of the larger mills regularly use waste sulphite for pasting, it is urged that you contribute to this inquiry. The replies will be transcribed in blank and assembled in special Report No. 46, a copy of which will be sent to all who respond to

W. G. MACNAUGHTON, Secretary, TAPPI.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Paper Making Industry

By Clarence J. West, Chairman

Testing

Paper Testing. A. G. Rendall. Paper Trade J. 81, No. 9, 47-54 (Aug. 27, 1925). A scheme of analysis of ordinary papers (i. e., excluding coated papers, parchments, etc), suitable for testing paper supplied on specification, is outlined, comprising sampling, chemical tests, strength tests, and other physical tests. Discussion by several prominent English paper chemists concerned more particularly accuracy and significance of the results, necessity of standardization, and difficulties in making specifications. —A. P.-C.

Determination of Chemical Pulp and Groundwood in Paper. Dr. Halse. Paper Trade J. 80, No. 16, 49-50 (Apr. 16, 1925). See Pulp & Paper 23, 947 (Aug. 20, 1925); Paper Trade J. 81, No. 7, 54 (Aug. 1925).—A. P.-C.

Notes on Tendency of Paper to Curl. Pulp & Paper 23, 935-936 (Aug. 20, 1925). Discussion of the mechanism and causes of curling.—A. P.-C.

Study of the Mullen Tester on Paper Board. A. Abrams. Paper Trade J. 81, No. 6, 56-59 (Aug. 6, 1925). A general study of the "regular" and "jumbo" types of Mullen testers indicated when testing sheets having a bursting strength of 60 to 110 points variation in the different factors involved can produce the following respective percentage variations in the results of the test: relative humidity (changing from 40 to 80%) 15 to 20; number of tests (2 to 6) 10; type of tester and pressure 14; operator (same tester but different clamping) 10; rate of turning wheel 3; area of opening (caused by lower plate turning slightly) 5; age of diaphragm 14. These factors indicate that uniformity in Mullen tests on paper, as between two operators, require a sheet with the same moisture content; at least 6 texts on each sheet; use of the same or equal testers having calibrated gages, relatively new diaphragms and properly filled with glycerine. It is essential to use equal clamping pressure and to turn the wheel with a slow, uniform motion.—A. P.-C.

Bursting Strength Tester. W. D. La Batt and H. Sengebusch assignors to E. J. Cady. U. S. pat. 1, 530,678, March 24, 1925. The purpose of the invention is to overcome inaccuracies in the results obtained with the Mullen tester owing to differences in the rate of operation of the hand wheel and to differences in the pressure with which the test sample is clamped over the diaphragm. The machine is started by a hand operated lever after which its stroke or cycle is entirely automatic, and it exerts a constant and uniform clamping on the test sample and a constant increase of pressure of the liquid on the diaphragm. After the test is finished the pressure of the liquid on the diaphragm is released by reversing the lever and all the pressure parts are automatically restored to their initial positions ready for the next test.—A. P.-C.

Determination of the Acidity in Paper. S. Kohler and G. Ha. Paper Ind. 7, 1059, 1063 (Oct., 1925). The acidity of engine sized papers is mainly due to the rosin precipitant (usually sulphate of alumina) ("internal" acidity); that of tub sized papers, to the sulphate of alumina added to preserve the glue ("external" acidity). The latter is almost harmless as regards the permanence or durability of the paper, while the former may affect durability seriously. To determine total (both "internal" and "external") acidity, grind the sample in a suitable apparatus (e. g. a Koerner leather grinder,) to 5 g. in a 500 cc. Erlenmeyer add 250 cc. of boiling water in small portions with vigorous shaking between additions (see that the paper is properly soaked), heat 1 hr. on a steam bath with an air reflux condenser, drain off on a Buchner funnel (with strong suction,) rinse with 10 cc. cold water, transfer the fibers back to the flask and repeat the extraction twice. Cool the extracts to room temperature and titrate separately with hundredth-normal caustic soda, using phenolphal as indicator. The "acidity number" is the total number of cc. of hundredth-normal caustic required to neutralize the first 3 extracts, calculated per 10 g. of bone-dry paper. To determine "external" acidity use the following modification of Vandevelde's method: cut 10 g. into small pieces, extract by shaking continually for 2 min. with 100 cc. of cold distilled water, draw off on a Buchner funnel without washing, and titrate as before. "Internal" acidity is the difference between total and "external" acidities. Titrations with iodeosin indicator gave much lower results; but the ratio of the results obtained with the two indicators was practically constant. Iodeosin titrations are much more tedious.—A. P.-C.

Machinery

Barking Device. H. Rinderknecht. Ger. pat. 416,698. Papierfabr. 23, 551 (Aug. 23, 1925). A barking device is described which consists of a band suitably arranged.—J. L. P.

Bark Press. M. J. Power. U. S. pat. 1,550,045, Aug. 18, 1925. A rectangular piston reciprocates in a horizontal perforated cylinder of similar cross section, one end of which is slightly constricted and is closed by means of a heavy swinging door. At the other end of the cylinder is a hopper for feeding the wet bark. Water-soaked loose bark is fed into the hopper, and falls into the cylinder when the piston finishes its backward stroke. On its forward stroke the piston pushes the bark into the cylinder, any pieces of bark which may be partly in the cylinder and partly the hopper being cut by a horizontal knife carried by the upper edge of the piston. More bark is introduced at each stroke, gradually filling the cylinder. When the bark reaches the contracted end of the cylinder it offers greater frictional resistance and is also prevented from falling out by the swinging door, so that sufficient pressure must be exerted to overcome both the increased friction and the weight of the door. The expressed water escapes through the openings in the cylinder walls. It is claimed that the bark is forced out of the machine in a condition in which it can be sent directly to the boilers. The construction described is simple and rugged.—A. P.-C.

Rossing Device. J. M. Cote. U. S. pat. 1,549,855, Aug. 18, 1925. The device comprises a drive shaft carrying a number of spaced disks. Through these disks, and near their circumferences, are passed a number of rods. The rods are loosely surrounded by cutting rings that is, the rings have an internal diameter which is larger than the diameter of the rods. These cutting rings are driven outwardly by centrifugal force during the rotation of the shaft; but in meeting resistance which is greater than that of ordinary bark they pass over it, so that they do not cut into the woody portions of the logs.—A. P.-C.

Pulp Wood Peeler. J. Saprones. U. S. pat. 1,539,693. May 26, 1925. The logs are fed to the cutter through a circular series of reversely curved spring arms which center the logs with respect to the cutting elements. The cutting elements, each consisting of a curved blade, are mounted on a suitable number of sets of arms pivoted to a like number of rings and held against the logs by means of springs. Each arm also carries an adjustable curved guiding blade which regulates the thickness of the strips removed by the cutting blades. As a log is fed through the machine the first set of cutting elements removes a series of strips of bark equally spaced around the log; the second set of cutters remove a like number of strips adjacent the ones already removed; and so on until the bark has been removed around the whole log.—A. P.—C.

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Pulpwood Chipper. L. H. Street. U. S. pat. 1,538,066. May 19, 1925. The wood, preferably in the form of slabs, edgings, etc., is placed in the feed spout or trough, which is inclined at about 30° to the horizontal, and in the floor of which are fluted rolls to engage the wood and feed it positively against the knife. Steel press plates rest on top of the wood to hold it against the fluted feed rolls. The cutting knives are given a vertical reciprocating motion, and co-act with a base knife at the edge of the feed trough. The feeding rolls are arranged so as to automatically feed the wood forward a distance equal to the length of chip between each stroke of the knives. The machine is claimed to produce good chips of uniform size throughout the entire length of the slabs, etc.—A. P.-C.

Pulp Thickener. G. K. Walker. U. S. pat. 1,550,293. Aug. 18, 1925. During normal operation of an ordinary type of decker a substantial quantity of the thickened pulp gathers in the nip of the couch roll and cylinder, forms into rolls, and falls back into the vat with the stock. In order to prevent this, an inclined plate or backfall is provided adjacent the nip of the couch and cylinder in such a manner that the bulk of the accumulating pulp rolls down this plate and into the stock chest rather than back into the vat. Best results are obtained with a sheet of thin metal having its upper edge bevelled, and reinforced by means of a strip of wood about which the lower side of the metal is bent. The upper edge is preferably one inch (measured radially) from the surface of the cylinder and 3/8 inch below the horizontal line passing through the point of tangency of the two rolls.—A. P.-C.

Critical Considerations Concerning the Screen of a High Speed Paper Machine and the Modern Performance of the Same. A. Danninger. Papierfabr. 23, 557, 567 (Aug. 30, 1925). A comprehensive study of sheet formation on a modern paper machine wire and on the correct functioning of the same, with especial reference to German practice.—J. L. P.

Pulp Screen. A. J. Haug. U. S. pat. 1,533,410. Apr. 14, 1925. The stock to be screened is fed under a constant head inside and at one end of a rapidly rotating screening drum, being discharged against the head of the drum in such a manner as to distribute it uniformly around the circumference of the end of the screen. Mounted within the screening drum is a hollow stationary drum on the outer surface of which are mounted inclined blades which have as little clearance as practical with the inside surface of the screen drum. The rapid rotation of the screen (about 1600 ft. per min.), together with the blades, causes the stock which does not pass through the meshes to travel in a spiral path to the other end of the screen where a stationary scraper guides it into a tailings discharge chamber. Provisions is made for washing the tailings during their progress through the drum. A spray of clean water is also directed against the top of the screen to clean the screening surface. The height of the screened stock outlet can be adjusted by means of an adjustable wire and the machine is preferably run with the drum completely submerged in the stock.—A. P.—C.

Decker or Paper Machine. A. J. Haug. U. S. pat. 1,531,482. March 31, 1925. The stock is fed to the inside of a cylinder, the rotation of which causes the stock to adhere to the wire and at the same time forces out the water. Inside the cylinder and at or near the top is the couch roll which picks off the laver of pulp from the cylinder. The stock may be either scraped off the couch roll into a trough in the center of the cylinder and discharged by means of a screw conveyor, or else passed between a couple of pairs of press rolls and removed from the cylinder in sheet form.—A. P.-C.

Straining Paper Pulp. J. J. Armstrong. Eng. pat. 234,582. In inwardflow screen the coarser particles separated by the screen are moved longitudinally by a spiral blade or flange on the exterior of the screen, and lifted to a discharge opening, communicating with a shoot, by a blade on the closed end of the screen, which blade is curved backwards from the axis and inclined outwards.—A. P.-C.

Pulp Strainer. S. Thune. Eng. pat. 226,519. The casting is of hexagonal shape and the screen is an even circle, so that the channel between them varies, and six changes of peripheral surface are provided. The casting is raised at the top to allow space for intake and outlets at the right and left top corners.—A. P.-C.

Centrifugal Screen. P. Priem assignor to American Voith Contact Co. U. S. pat. 1,537,691, May 12, 1925. This is essentially a multiple-stage screen enclosed in a single casing. The stock is fed into and forced through a fixed screening drum by means of a rotating runner with suitable wings. The surface of the screening drum may be divided into two or more sections which may have screens of the same or of different meshes. The coarse material which does not pass through the screen is delivered directly into another compartment or section in which it is diluted with water and screened in a similar manner. A third compartment may be provided for rescreening the rejections from the second compartment. This arrangement greatly reduces the floor area required for screening, and eliminates the pumps generally used between successive screens.—A. P.-C.

Pulp Roll Skinner. R. A. North. U. S. pat. 1,549,791, Aug. 18, 1925. Ripping members for cutting off the layer of pulp accumulated on the couch roll of a wet machine are mounted at each side of the roll and are attached to a cable by means of which they are made to simultaneously approach toward or recede from each other. They are operated through a clutch controlled by a yoke resting on the couch roll journal, so that the clutch is thrown when the pulp on the roll has reached a certain predetermined thickness. The ripping members are carried across the face of the roll, meeting in the center where they slightly overlap, and return to their original positions at each end.—A. P.-C.

Wet Machine. R. E. Wagner, and J. D. Ullgren, assignors to Aktiebolaget Mekaniska Verkstad. U. S. pat. 1,534,620, April 21, 1925. According to the invention an endless wire runs through the pulp vat partly around the cylinder mould. One or more suction boxes are provided to act against part or the whole of that portion of the cylinder mould around which the wire does not pass. A couch roll may or may not be provided. The pulp sheet as it leaves the wire can be carried by a felt to presses or to a drying machine.—A. P.—C.

Press Roll for Wet Machines. R. E. Wagner assignor to Aktiebolaget Karlstadts Mekaniska Verkstad. U. S. pat. 1,552,098, Sept. 1, 1925. The roll is provided with surface grooves the width of which is less than figure mm., and the depth of which is such that material pressed into the grooves will become pressed by the bottom of the grooves. The space between adjacent grooves is at least equal to the width of the grooves.—A. P.-C.

Covering for Rolls for Wet Machines or for Pulp Drying Machines. R. E. Wagner assignor to Aktiebolaget Karlstadts Mekaniska Verkstad. U. S. pat. 1,539,338, May 26, 1925. The covering is essentially built up of metal links (preferably cast iron of which the outer working surface is left in the rough cast condition) which are connected together so as to form an endless chain or grate surrounding the press rolls. The chains may either have a length equal to the circumference of the rolls, which they then surround completely; or else they may be made longer than the circumference of the rolls, so that they also pass around a guide or tension roll. In the case of the lower press roll, if the covering is made longer than the circumference of the roll, it may be allowed to hang down freely instead of passing around a second roll.—A. P.-C.

Process of and Apparatus for Weighing Paper. J. B. Buehler and C. J. Kern, U. S. pat. 1,538,615 May 19, 1925. The paper web on the paper machine is passed over a roll located at some convenient point of the machine, preferably, but not necessarily, between the last press and the first drier. The ends of the roll are suitably connected to the platform of a discale, which is set so that when the paper coming over the machine is of the right weight the dial registers zero. Hence, movement of the pointer in either direction indicates that the paper is too light or too heavy. By connecting each end of the roll to a different scale, differences

in the weight of the paper across the width of the sheet are indicated. In certain cases the device may conveniently be placed between the last drier and calender, or between the calender and cutters. It is especially adapted for use in weighing heavy paper such as box board. 6—A. P.—C.

Method of and Apparatus for Working Paper Stock. A. J. Haug. U. S. pat. 1,535,834, April 28, 1925. The stock is worked by means of a series of rolls (preferably four) journalled in two spiders and rotating within a casing, the rolls being driven positively so that there will not be true rolling contact between them and the casing, as already provided in U. S. pat. 1,518,922 of Dec. 9, 1924. The invention more particularly provides: (1) scrapers which prevent the stock from accumulating on the rolls, (2) a special lubrication system, and (3) packing which prevents substantial leakage of the pulp into the bearing housings, and prevents oil from working from the latter into the pulp chamber.—A. P.—C.

Paper Making Problems. H. Latimer. Paper Mill 49, No. 41,37-38 (Oct. 10, 1925). Practical indications on reducing dirt in paper, and on overcoming troubles due to uneven drying across the machine.—A. P.—C.

An Insulated Paper Mill Roof. B. C. J. Beckwith. Paper Trade J. 81, No. 14, 58-59 (Oct. 1, 1925); Paper Mill 49, No. 40, 38, 50 (Oct. 3, 1925). The following construction, applicable to either a flat or a pitched type of roof, is recommended as an ideal roof. Homogenous sheets of deeply corrugated asbestos wood, 42 in. wide and ⅜ in. thick is laid over suitably sized wood or (preferably) steel purline arranged on not over 45 in. centers. The whole deck thus formed is given a heavy mopping of asphalt roofing cement of such a mixture that it will remain "tacky" after hardening. A light weight iron wire mesh is stretched over the top of the corrugation, and a monolithic insulation, or fill, is poured on and built up to the required thickness. When the insulation has set and is thoroughly dry, the surface is waterproofed with a Johns-Manville Asbestos and Asphalt Built-up Roof of standard design.—A. P.—C.

Wood Stock for Paper Making. F. Barnes. U. S. pat. 1,549,103, August 11, 1925. Deckered groundwood stock is digested to effect uniform hydration and may simultaneously be mixed with sulphite.—A. P.—C.

Disintegrating Materials for Paper. R. Marie. Eng. pat. 237,808. The plates and hammers of this machine are serrated in order to open out the fibers more rapidly, and also to permit foreign matter to be separated.—A. P.—C.

Controlling and Delivering Paper Stock. A. Tiffet. Paper Mill 49, No. 42, 6 (Oct. 17, 1925). Instead of placing the valve or dam regulating the flow or stock from the stuff chest to the jordan at the jordan box, it is placed at the fan pump box between the jordan and paper machine. This results in filling up the jordan completely with the stock under a head of about 10 feet. It is claimed that this gives a considerable increase in beater capacity, more uniform weight, and higher pop test.—A. P.—C.

Electric Paper Machine Drives. Papier 28, 837-892 (Aug. 1925). A comparison of the Harland and A. E. G. sectional electric drives. The latter is being installed on a 240 inch, 1200 ft. per min. machine at the Feldmuhle Odermunde A. G. Cavelwisch.—A. P.—C.

Machine for Making Paper Towelling. W. A. Lorenz assignor to The Otaka Fabric Co. U. S. pat. 1,541,977, June 16, 1925. The moist web is passed through embossing rolls situated between the presses and the driers. The embossed sheet is then dried under such conditions as not to destroy the embossings, and is finally put through a calender stack. This has the effect of limbering the fiber, thereby softening and smoothing the paper, and rendering it highly flexible and limp, and velvety to the touch. In this condition it is particularly suitable for making into towels.—A. P.—C.

Device for Adjusting the Shake of a Paper Machine While Running. D. Jarochevsky. Fr. pat. 592,813, April 7, 1924. Over part of its length the shaft controlling the shake part of the fourdrinier is oblique, and a cylindrical cursor provided with an oblique hole corresponding to the angle of that portion of the shaft is splined to it. Its position is adjustable by means of a hand wheel. This cursor acts as an eccentric, its position determining the amplitude of the shake, while the frequency is controlled by the position of the driving belt on a cone pulley on the shaft.—A. P.—C.

Paper Machine Head Box. C. Bucking. Eng. pat. 237,598. In the production of paper of substantially uniform strength in all directions the stock is caused to eddy before or during its settling on the wire cloth. The eddies are produced by delivering the stock on to the wire through vertical pipes having guide surfaces or worms therein, the pulp being fed from the bottom portion of the box upwards through the pipes.—A. P.—C.

The Use of Rubber Covered Rolls. R. B. Adams. Paper Mill 49, No. 42, 14, 16 (Oct. 17, 1925). A discussion of hardness and crown of rubber covered press rolls from the standpoint of maximum water removal and life.—A. P.—C.

Removal of Deposited Particles on Felts and Wire Cloth by Electro-Osmosis. W. Fuhrmann, Ger. pat. 416,281. Zellstoff U. Papier, 5, 366-367 (Sept. 1925). The paper machine felt or similar article to be cleaned is passed into a liquid around a roller and between positively and negatively charged plates or electrodes.—J. L. P.

Causes of the Wearing Out of Wire Cloth. Papier 28, 763-770 (July, 1925). An outline of many of the numerous causes of the wearing out of paper machine wires, more particularly of those which cause a premature break down of the wire.—A. P.—C.

Instantaneous Variation in the Weight of Paper Coming from the Machine. H. Micoud. Paper Trade J. 81, No. 12, 51-54 (Sept. 17, 1925). See Pulp And Paper 23, 946 (Aug. 20, 1925); Paper Trade J. 81, No. 7, 53 (Aug. 13, 1925).—A. P.—C.

Making Two Sides of Paper Alike. Alfelco Facts (June, 1925); Making Paper 8, 87-88 (Sept., 1925). A discussion of the method of treating the sheet so that both sides will be the same by the time it reaches the calender, and of the function of special felts in obtaining this.—A. P.—C.

Two-in-One Paper Machine. A. E. Rybert. Eng. pat. 236, 789, July 16, 1925. In order to increase the output of fine paper it is proposed to mount two sets of wires, presses, etc., one above the other in one frame. The main advantages are that the double machine requires the same screw as a single machine, that no more floor space is required, and renewal costs compared with wider machines giving less output are much smaller. The machine can be adapted for paper of varying grades, as well as for fine grades.—A. P.—C.

Method of Supporting the Shake Frame of Fourdrinier Paper Machines. R. H. Grant assignor to Rice, Barton & Fales, Inc. U. S. pat. 1,540,774, June 9, 1925. In order to overcome the drawbacks inherent to the use of coiled springs for absorbing the shock of the shake, the functions of both the flat steel supporting springs and the coiled springs heretofore used are combined in one set of specially constructed springs of the leaf or laminated type. The fixed end of each spring is secured in a special support, adjustable on a horizontal axis, so that the tension of the springs easily can be adjusted to suit requirements. This construction is claimed to minimize the driving power required to vibrate the shake-frame, and also the wear upon parts and bearings —A. P.—C.

Stock Regulator for Paper Machines. F. J. Wallace. U. S. pat. 1,544,705, July 7, 1925. The pulp is fed from the pulp box into a suitable hopper with a relatively small opening. If the stock is too thick it will not flow easily through the hopper, and will raise a float in the latter. The float is connected so as to operate a valve in a water line, thereby supplying water to thin the pulp down to the desired consistency.—A. P.—C.

Fourdrinier Paper Machine. A. Aldrich. U. S. pat. 1,536,599, May 5, 1925. The table rolls at the breast roll end of the fourdrinier are mounted eccentrically, so that the rolls as a whole vi-

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hrate the wire, thereby agitating the pulp on the wire and giving the paper a good formation. This may be used in conjunction with usual shake for improving the formation of the sheet.—A. P.-C.

Cover for Suction Boxes on Fourdrinier Machines. A. Lewis. U. S. 1,534,854, April 21, 1925. The two sides of the suction box are provided with upstanding flanges, which have dovetailed or undercut grooves in their edges, and which are preferably somewhat farther apart at one end of the box than at the other. The cover proper consists of a perforated plank having its longitudinal edges beveled to fit the dovetailed grooves in the flanges, and the cover tapers in width to correspond with the varying distances between the flanges. The cover can be slid endwise into place without disturbing the wire and without having to take out the suction box, and is wedged in place so as to make an airtight joint with the flanges.—A. P.-C.

Suction Box for Fourdrinier Paper Machines. J. E. McLaughlin and J. O. Hamel. U. S. pat. 1,534,948, April 21, 1925. The edges of the suction box consists of two rolls driven at the same peripheral speed as the machine wire, the journals of the rolls being supported in blocks which are adjustable both vertically and longitudinally. A specially designed sealing head is provided between the two rolls forming the edges of the suction box, its position being adjustable transversely of the machine. Adjustable jacket packing is provided between the body proper of the suction box and the lower portion of the rolls. Over each end of the suction box there is a narrow strap carried around two flanged rolls placed directly over the suction box rolls, the function of these straps being to seal off that portion of the box which is not covered by the paper sheet on the wire.—A. P.-C.

Suction Roll. G. D. Kilberry. U. S. pat. 1,551,405, Aug. 25, 1925. The invention consists essentially of a suction roll structure comprising a perforated shell with heads secured to the ends thereof and hollow journals carried by the heads. These hollow journals are mounted in stationary bearings. A suction box is mounted within the perforated shell and at the ends of the box are trunnions, at least one of which is hollow, which are mounted and supported in the hollow journals of the shells. The heads at the ends of the shell are provided not only with circular flanges for supporting the shell but are also provided at the inner ends with seats adapted to receive anti-friction bearings, which are interposed between the shell journals or heads and journals of the suction box. The bearings are as close as possible to the suction box so as to support it directly and reduce the deflection to a minimum. The suction box is held against rotation with the perforated shell. By this construction the suction box and shell are always maintained in alignment with each other; and since the shell journals have a much smaller diameter than the diameter of the shell, the rotation of the shell at excessive speeds will not cause undue wear of the bearings. Furthermore, the shell can be directly driven and does not require a complicated train of gearing.—A. P.-C.

Device for Removing Water from Paper on the Machine Wire. J. D. Tompkins. U. S. pat. 1,549,338, Aug. 11, 1925. The machine is provided with one press, which has a lower suction roll, and an upper suction couch roll. The paper is picked up from the wire by means of an upper wet felt which passes around the upper couch roll and carries the paper right through the press part of the machine until it is picked up by the first drier. A lower felt is also provided for supporting the paper through the press part of the machine. The essential feature of the invention consists in providing an air blast directly under the suction couch across the full width of the sheet to carry off as much water as possible and make the sheet as dry as possible when it reaches the press.—A. P.-C.

Wet-Web Carrier for Pulp and Paper Machines. W. Sheehan. U. S. Pat. 1,536,533 May 5, 1925. The object of the invention is to produce an article to supersede paper makers' felt. This is obtained by taking a strong, resilient, cushioning base, such as rubber, which may be either solid or perforated or either plain or reinforced, and applying a textile covering consisting either of a woven fabric or of a plurality of yarns laid in any desired pattern. The covering may be secured to the base by means of a strong adhesive, or by rolling or pressing into the surface of the rubber while the latter is in a plastic state. It is claimed that a "carrier" thus constructed is free from virtually all of the defects inherent to the usual paper maker's felts.—A. P.-C.

Cylinder Machine. A. N. Burnham assignor to The Beaver Co. U. S. pat. 1,536,610, May 5, 1925. A hollow shaft is mounted in the stock vat and is connected to a vacuum pump. A sleeve valve of the same length as the shaft is mounted over the latter, and its angular position with reference to the shaft can be adjusted. The cylinder is mounted over the sleeve valve and is driven by means of pinions and large spur gears on the ends of the cylinder. The cylinder is divided into a series of radially extending compartments by means of imperforate partitions extending from the hub to the circumference. The compartments open at the central shaft, and the shaft and sleeve have registering ports at the point where the compartments of the cylinder emerge from the stock. The water which passes into the compartments is thus delivered into the hollow shaft whence it is removed by pumping. End plates are provided to close the compartments at either side of the cylinder when they have emerged from the stock. As the compartments communicate with the shaft, which is connected to a vacuum pump the sheet on the surface of the cylinder is thus put under suction to remove the water. An air blast is provided to blow the sheet off the cylinder. —A .P.-C.

Cylinder Machine for Making Tissue Paper. W. E. McIntyre. U. S. pat. 1,542,256, June 16, 1925. In order to produce a paper having a more uniform strength in all directions a flexible apron is provided which covers part of the cylinder where the stock first comes in contact with it as it overflows over the dam. The feed of the stock is regulated by a so-called "flow gauge" consisting of a relatively broad, flat strip or bar of wood or metal on top of the dam and parallel to the cylinder. Adjustment towards or away from the cylinder feeds a greater or less amount of stock into the vat, and also the degree of agitation and mixing of the pulp before it comes in contact with cylinder. The sheet is held between two felts as it passes through the press, and is transferred from the lower felt to the driers by means of the upper felt.—A. P.-C.

Paper Machine Roll. B. A. Malkin. U. S. pat. 1,546,394, July 21, 1925. The roll comprises a tubular shaped roller with short shafts extending into it at each end. Hollow sleeves are mounted on the shaft, and end castings are securely attached to the end of the tube and adapted to extend a short distance within the tube. Between the shaft and sleeves are tapered roller bearings which can be adjusted to prevent longitudmal movement of the tube. Means are mounted on the shaft to protect the roller bearings from dirt, etc., and double lipped deflectors are securely mounted on the shaft and situated at each end of the tube to protect the bearings from water, etc., one lip of each deflector being approximately the diameter of the tube and the other lip being slightly less than the inside diameter of the tube into which it is adapted to extend.—A. P.-C.

Suction Cylinders. C. Seybold and J. Boltersdorf. Eng. pat. 228,516. These suction cylinders have cells partitioned by longitudinal ribs. The outer edges of the ribs support the travelling wire. The wire closes the portion of the cylinder which it surrounds. The arrangement dispenses with the need of the usual permeable envelope.—A. P.-C.

Web Transferring Device for Paper Machines. J. J. Lobb assignor to Scott Paper Co. U. S. pat. 1,553,948, Sept. 15, 1925. An adjustable roll with a cushioned surface, capable of picking up the wet web and travelling at the same speed as the paper, presses against the couch roll and against a drier, so that the sheet is transferred directly from the couch to the driers. (Apparently no presses are used.)—A. P.-C.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

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THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

Analyzing Net Worth in the Financial and Industrial Investigation

By Arthur Andersen, Arthur Andersen & Co.

Careful analysis of the net worth of a business will usually develop many facts bearing upon the financial policies of the management. Such an analysis cannot be made purely from the viewpoint of figures, but includes a study of the conditions which have produced given values of net worth, and even goes beyond this investigation into a study of the form of net worth. It may be said that the analysis supplements the audit of all other sections of the balance sheet, by which the various assets and liabilities have been evaluated; and it serves to paint a word picture of the manner in which these assets have been created and these liabilities incurred. It is frequently more important to know the steps by which these things have been done than to know the actual amounts of assets and liabilities.

Another purpose served by the verification of the net worth section is to determine, so far as possible, the financial policies that have guided the management over the life of the corporation, in regard to such matters as depreciation, dividends, in relation to earnings, surplus in relation to capital stock, etc.

Sources of Net Worth

Net worth is acquired from the three primary sources of, investment by stockholders, retention of earned profits, and capital profits. It is true in many cases, and inevitably so during the early stages of corporate existence, that investment by stockholders is the principal source of net worth.

An investigation of the investment by the stockholders in its broad sense, includes an examination into the inception and financial history of the company as well as analysis of its capitalization. The examination into the inception and financial history must be approached from two angles; from the financial aspect, and from the operating aspect. The examination from the financial angle should include the articles of incorporation, corporation minutes, entries opening the corporate general books, and other pertinent data relative to the inception of the present corporate organization. The result of this examination must be a clear and concise statement of the steps taken in the organization of the present corporation. Such a statement must show the properties acquired and the consideration given therefor, and must set forth this information in an orderly manner which will indicate the actual steps that were taken in the formation of the corporation.

The operating aspect of this portion of the investigation is much broader in its scope and more fundamental in character. It approaches the problem from the business rather than the purely financial side. The analysis will show a history of the beginning of the business as distinguished from the inception of the corporation which may represent the consolidation of a number of independent companies. It is frequently found, for example, that a consolidation is effected of a number of companies which were hitherto competing. Subsequent to the consolidation the poorly situated plants may be discontinued, and production centered in the better situated plants providing their capacity is sufficient to take care of the combined requirements of the consolidated business.

The advantages arising from such a consolidation may be many, among which may be mentioned the possibility of producing a mechanically superior product through the combination of the best features of the hitherto competing products, the economies arising from operating plants throughout the year at a point which is near normal capacity, and the more skillful management control which may be secured by the consolidated organization, which has sufficient volume to employ men of ability with large experience in manufacturing products of this character.

It may be, on the other hand, that the consolidation was carried through in order to secure the more efficient and economical production of a number of manufactured articles which, although not competing in themselves, are of such a character that they may be most efficiently manufactured under one central control.

It may prove necessary to outline from a business standpoint the beginnings and principal steps in the the growth of the several predecessor organizations up to the time of the consolidation, and from the date of the organization of the present corporation down to the end of the period covered by the present investigation. Such an outline will show, among other things, the development of the patents used by the organization and the principal steps in producing and establishing on the market the principal products of the company over a period of years.

Analysis of Original Capitalization

Having secured a complete history of the beginnings of the company, both from the financial and operating standpoints, it now becomes quite desirable to make an analysis of the capitalization of the company from the date of the organization of the present corporation down to the date of the balance sheet. It is assumed,

of course, in this connection, that the corporation under investigation has been organized a considerable period of years, so that a study of this character will furnish a real guide as to the manner in which the assets of the company have been created and the liabilities have been incurred.

In case the corporation under investigation has been in business for only a year or two, and it is desired to make a comprehensive investigation of the company for the purpose of a security issue, it will be necessary to go back of the date or organization of the present corporation and to make the analysis of the results from operations and the net worth section cover a considerable period for the predecessor company or companies. This is especially true in case the men responsible for the management of the present corporation were guiding spirits of the predecessor companies. It will be assumed, however, that the corporation under investigation has been organized and has been in operation for a considerable period of years prior to the date of the investigation.

The analysis of the capitalization of the company should show the original investment of the stockholders, any additional investments made by the stockholders, the amount of stock dividends which have been paid and added to the capitalization, and finally the extent of the participation of the original organizers and present managers in the stock ownership.

Three Major Considerations

The original investment of the stockholders will be represented by stock issued for any one of three considerations. First of all, the stockholders may have paid cash for their capital stock, and the liability for the cash investment of the stockholders may be carried in the capital stock account, or if a premium has been paid by the stockholders for the stock issued, the premium paid should be carried as paid-in surplus. It is clear that if stock has been issued for cash for a price at least equal to the par value of the stock, no investigation is called for except to make certain that no unfair discrimination was practiced between the stockholders and that the sale was duly authorized.

Second, stock may have been issued originally to the stockholders for fixed property or for the other tangible considerations not cash. Such considerations may include accounts receivable or stocks of material and supplies, in case the owner of a small unincorporated business sells his property for capital stock of the new corporation.

Finally stock may be issued for patents and good-will. Stock so issued may represent an issue for actual and real consideration or may represent an amount taken by the original owners to reward themselves for having undertaken the enterprise. Profits in the flotation of the enterprise taken by the promoter are also frequently disguised and charged to patents and good-will if stock is issued to the promoter in payment for his services. It is hardly feasible in this discussion to outline the steps to be taken in passing upon the validity of the issue of stock for property or other considerations, or for patents and goodwill. In general, however, it may be said that if the issues have been properly authorized, and if no fraud or collusion is indicated, there is no occasion to question the actual value of the consideration given for the stock as issued. However, the character of the property acquired in consideration for the issue of stock should be plainly shown, and if it appears that no real value was acquired through the issue, the report should so state.

Analysis of Subsequent Capitalization

Having analyzed the original investment made by the stockholders and having segregated the issues of stock between that issue for cash consideration, that for tangible property, and that for patents and goodwill, an analysis should be made of the additional investment by stockholders and segregated in the same manner. This segregation is important in the analysis of the additional issues for the identical reasons outlined in connection with the discussion on the analysis of the original issue of stock.

As already indicated, stock issues may represent original investments, additional investments, and stock dividends. Stock dividends consist of nothing more or less than permanently impounded profits and must be related to the sources from which these profits came. They need to be considered at this point only for the purpose of completing the outline of the company's capitalization.

The foregoing outline of the analysis to be made of the issues of capital stock, and which is intended to cover both the issue of preferred and common stock, should also be made having due regard to certain questions, the answer to which will throw a considerable degree of light on the policies of those most actively interested in the company's business. In making such an analysis, consideration should be given to the portion of the total stock investment owned by the original organizers. If the original organizers have parted with a large portion of their original holdings or if their original holdings in the first instances were relatively nominal, it may be that they do not have sufficient faith in the future of the business to invest their own resources in it to any material amount.

It is also well to have in mind the division of the stock investment of the original organizers between preferred and common stock. We frequently find the situation where the organizers have not put any cash or any real tangible property into the business, but have secured control of the company through the issue to themselves at time of organization of a large portion of the total common stock issued in consideration for patents, good-will and other intangibles. It may be in such a case that the preferred stock, which was issued and sold for cash, actually represents the only real equity back of the business, and if the original organizers have made no cash investment whatever in the business the question may well be raised as to the amount of faith they have in its future success.

The extent of the participation of the original organizers in the purchase of subsequent issues of stock is also an important consideration, since it indicates whether they have continued to support the company to the extent of their means, or whether they have drawn back and allowed outsiders to take all of the risk incident to the subsequent issues.

It is self-evident that the stockholdings of the active officers in charge of the finances and operations of the company furnish a most important guide as to the sincerity of the management in its protestations as to the success and future prosperity of the company.

Growth of Net Worth

The answers to any questions of this character, however, must be considered with due regard to the individual case in question. It may be for instance, that the original organizers of the business were men of small personal means who possessed little beyond some valuable patents and some good connections which would be very useful in the operation of the company. It may also be true that the principal officers of the company are men with no private fortunes, who have invested as much as they consistently could in the securities of the company, although their aggregate investment may be almost nominal. In such cases it is evident that the character of the stock investment by the organizers or officers may furnish no reliable criterion as to their sincerity of purpose or their faith in the future of the company. In general however, these questions are important and should receive careful consideration.

Since some portion, and often a considerable portion of net worth, is derived from the retention of earnings, it will be necessary to summarize the net profits by years from the date of the corporation down to the date of the balance sheet. These net profits, of course, should be audited for the period covered by the investigation, that is to say, the period for which an audited income account is to be submitted. For the period prior thereto, the net profits per books may be used subject to any large adjustments that may be indicated as the result of the general analysis of the property and depreciation reserve accounts for the

years prior to the beginning of the period for which the investigation is to be submitted and also subject to all that may be indicated by the investigation of the years actually audited.

It may be assumed, for instance, that a company has been in existence for a period of 15 years and that a 5-year income account is to be submitted in connection with the investigation. In such a case it is desirable to make a general examination of the property and depreciation reserve accounts from the date of organization, even though the property values may be stated on the basis of an appraisal as of the date of the balance sheet. Large errors, which would affect the yearly net profits indicated by this general examination of the property and depreciation reserve accounts, should be taken care of in the summary of the net profits.

Now that a history of earnings from the inception of the company to the close of the period covered by the investigation has been prepared, it is necessary to consider the disposition of these net earnings. There should therefore, be prepared a summary of all cash dividends paid year by year from the date of organization down to the date of the balance sheet. It is quite desirable to have the dividends paid year by year set out in a column parallel to the net earnings year by year. Such a statement will indicate whether the company has consistently pursued a conservative and provident course in building up its net worth through the retention of part of its operating profits in the business.

The dividends on preferred stock frequently represent a charge which must be met if the company is to continue in successful operation, and dividends on preferred stock paid out of accumulated earnings of prior years are a necessary incident in the experience of a company which has issued preferred stock and which has wide variations in its operating results from year to year. So far as common stock dividends are concerned, however, it would seem to be the part of prudence for a company to conform the amount of its cash dividends on common stock from year to year to the actual surplus net earnings available therefor, after making provision for preferred dividends and after leaving some residue of earnings to be retained in the business.

Net Worth From Capital Profits

The third and last source of net worth is to be found in capital profits. Capital profits may be segregated into profits actually realized and profits constructively realized.

Capital profits actually realized arise from transactions not directly connected with the regular business and frequently in connection with the sale of real estate, whether this real estate has been held merely as an outside investment or has been used in the operation of the business. In either case, the profit arising from the disposition of the real estate should, if the item is large, be shown as a capital profit rather than as a part of the profits arising from the regular operation of the business of the company.

An example of true capital profit is seen in the case of a company whose plant on a piece of land that ultimately became very valuable as a terminal site for a large railroad. The price paid for this property under condemnation proceedings was sufficient to reimburse the company for the entire original cost of this property, including the buildings which had been erected on site and had been in use by the company for many years. Since the company had never enjoyed sufficient earnings, to set up any provision for depreciation, this sale made at a time when its manufacturing plant was pretty well worn out, furnished a happy solution to a problem that had become extremely difficult. A special profit of this character which has been actually realized may be included in the earned surplus of the company, of course. There is no question, however, that such a profit should be set out separately in any history of the earnings credited to surplus account during the period from the date of organization of the company to the date of the balance sheet.

Capital Profits "Constructively Realized"

The situation is different, however, in respect to capital profits "constructively realized." Such profits may never properly be included in earned surplus, but should always be shown as capital surplus and should be designated by descriptive captions which will indicate the general nature of these profits. Such profits, when they do actually exist, represent, of course, the actual accretion in value of fixed assets through the operation of the law of unearned increment. If a building site purchased five years ago for $1,000 is adjacent to sites of similar size and identical in every way which have been recently sold at prices varying from $2,000 to $3,000, it is quite evident that the value of this site also has increased with the passage of time.

In general, however, any capital profits arising through the appreciation of fixed assets which have not taken up on the books, should be supported by the results of an appraisal made by a reputable appraisal firm, or by some other definite and conclusive evidence that the appreciation claimed has actually taken place. Surplus credits arising from mere write-ups of the book values of the fixed assets should be reversed, if possible. Frequently, however, these write-ups have been authorized by the directors of the company who have adopted this method of improving their balance sheet. In such cases it may be likely that it will be possible to reverse these write-ups. In such cases it is absolutely necessary to describe the item so clearly and definitely that no one can possibly be misled, or confuse such a write-up with actual capital profits which have been constructively realized.

Interpretation of Stock Dividends

Stock dividends, do not, of course, either add to or subtract from the total net worth of a company, although their declaration may have an effect on the company's net worth as indicated by the market quotations of its stock. Actually, however, stock dividends furnish merely a means of transferring capital from one pocket to another. They represent a permanent investment of profits, rather than distribution of profits, since the declaration of a stock dividend transfers a section of the net worth from surplus, where it is available for dividends to the capital stock account where it is not available. If a company is making large profits and growing rapidly it may be an indication of a very praiseworthy conservatism to declare large stock dividends which will have the result of increasing the stockholders' permanent investment and reducing the amount of the investment which is available for distribution in the form of cash dividends.

A question sometimes arises as to the capitalization of appreciation by means of a stock dividend. The legality of this procedure cannot be questioned; its propriety may constitute a very difficult question. It may be said, of course, that if the corporation were to reorganize and form a new corporation, it would be possible to issue stock of par or (in the case of no par value stock) declared value sufficient to absorb the entire amount of appreciation arising from the valuation of the assets. It may be argued, therefore, that the same result is being secured merely in another way by paying out the capital surplus in the form of a stock dividend.

In case capital profits created by an appreciation of the fixed assets have been paid out in the form of stock dividends, the fact that these stock dividends do not represent investment of actual earnings from operations but rather merely the transfer of capital profits arising from the appreciation of fixed assets, should be set out clearly in the review of the company's net worth.

Analysis of Capital Stock

Thus a greater or less proportion of the net worth may be represented by capital stock and a considerable importance attaches to the form given to this stock and to the classes of stockholders.

The position of the holder of preferred stock is largely that of a silent partner who has made his investment in order to secure a relatively high yield coupled with somewhat greater security

than that possessed by the common stock. The common stockholder, on the other hand, frequently possesses the sole voting power and almost invariably the voting control. Eliminating the speculator who buys in order to profit by market fluctuations of the common stock, the investor in the common stock of an enterprise has put in his money either because of his active participation in the affairs and destinies of the business or because of his faith in its ultimate success.

Having outlined in a very general way the fundamental characteristics of each of the two principal classes of stock, it will be desirable to give consideration to the special attributes of each class. Preferred stock is preferred in the event of liquidation and in the payment of dividends; that is to say, the agreement under which preferred stock is issued ordinarily provides that dividends can be declared and paid on the common stock. In many cases this provision for priority of dividend payments attaching to the preferred stock is made cumulative; in the case of cumulative preferred stock, it is stipulated that in the event dividends are passed on the preferred stock in any year or years, the preferred stock dividends in arrears shall be paid up in full before any dividends can be paid on the common. The stock agreement provides also that in the event of liquidation, voluntary or otherwise, the preferred stockholders shall be paid in full before any distribution of the assets of the corporation shall be made to the common stockholders.

Characteristics of Preferred Stock

Preferred stock, however, is ordinarily definitely limited as to the rate of dividend return which shall be paid its holders. Certain preferred stock issues carry participating stipulations which tend of course, to cause the stock to partake partially of the character of common stock. Ordinarily, the rate of return payable on preferred stock is definitely fixed and will not be increased in the event the company enjoys great prosperity and earns a high return on the capital invested. Preferred stock is hedged about with various protective provisions. In addition to the dividend and liquidation provisions previously referred to, it is frequently provided that the corporation shall maintain at all time a certain ratio of current assets to current liabilities and also shall maintain a certain ratio of net assets to preferred stock outstanding.

Preferred stock agreements frequently carry a sinking fund provision which provides for the retirement of stock over a period of years. These stipulations may and should require the company to make provision for these sinking fund payments through the appropriation of surplus net earnings for the purpose. Another stimulation designed to protect the interest of the preferred stockholders is frequently inserted to the effect that no mortgages or other fixed liens shall be placed upon the property without the prior consent of a two-thirds majority of the preferred stockholders.

As indicated by the foregoing discussion, it is evident that preferred stock possesses certain advantages and certain disadvantages for the investor. As contrasted with bonds, preferred stock yields a high return. Its principal disadvantage, as contrasted with bonds, is that it is very much less well secured since the preferred stockholder is usually somewhat impotent in the event of disaster. He cannot foreclose in the event of default, as can a bondholder, and by the time he succeeds to the voting power, providing the agreement under which he has purchased his preferred stock provides for the preferred stock to become vested with the voting power in the event of default, he is likely to find himself compelled to submit to a scaling down process through a reorganization in order to get anything out of the debacle.

The protective provisions which perhaps appeared to make the preferred stock extremely safe will all prove to be worthless in the event the company starts to suffer heavy losses from operation, since an industrial company losing money may frequently suffer terrific losses which wipe out a large portion of the stockholders equity before the preferred stockholder can secure control. Unfortunately no restrictive provisions have yet been devised which will prevent a company from losing money. In the event a company losses heavily through operating losses and the preferred stockholder comes into the voting control through default in preferred dividends, he frequently finds that the company has such a large floating indebtedness to the banks that if the business were to be liquidated, the settlement of the obligations to bankers and other creditors would absorb all the proceeds from the liquidation and leave him with little or no return on his original investment. In such an event he is perforce compelled to agree to the plan of reorganization designed by the creditors' committee, which perhaps provides for bonds to be taken by the principal creditors and for the preferred and common stockholders to make mutual sacrifices effected through reduction both in the amount of their stockholdings and the dividend requirements of these holdings.

Comparison Between Bonds, Preferred and Common Stocks

Contrasting the relative security of preferred stock with bonds, it should be remembered that mortgage bonds permit the investor, through his trustee, to step in and foreclose on the property in the event of default. When an industrial company already has a bond issue outstanding, banks will be very much more conservative and cautious about loaning the company money, and this situation tends to prevent a company from losing large sums and dissipating its entire net worth in operating losses before actually coming to a show-down. In case a company has no bonds outstanding, on the other hand, and has financed itself through the issue of preferred and common stock, banks may lend the company a considerable sum based on the security afforded by the capital investment of the preferred stockholders. In the event the sums advanced are dissipated through losses in operation, the bank can still fall back upon the capital investment of the preferred stockholders to secure payment of its claims and the preferred stockholders find themselves with little or nothing left of their original investment.

Contrasting preferred stock with common stock, on the other hand, the preferred stockholder enjoys greater assurance that his income will be steady and continuous and, in the event of reorganization, the contributions levied upon him are much less drastic. On the other hand, his return is fixed and limited except in the case of participating preferred stock, which has already been referred to, and he can entertain no hopes that he will share in the melon providing his company achieves great success.

From the point of view of the corporation, preferred stock has certain advantages and certain disadvantages. Its yield is higher than the yield enjoyed by bonds, but, on the other hand, there is not the danger that the preferred stockholder, like the bondholder, will step in and foreclose in the event of default. As contrasted with common stock, the issue of preferred stock is frequently a source of weakness to the company since preferred stock dividends cannot be passed without impairing the company's credit seriously. This situation is accentuated in the case of a public utility that has sold preferred stock locally in considerable volume by virtue of a widespread customer-ownership campaign.

Contrasted with common stock, preferred stock has certain advantages and disadvantages to the investor. First and most important, it is more secure, there is less danger that the preferred stockholder will see his entire investment wiped out. Unless he is able to keep in close touch with the affairs of the company, or unless the company is nationally known and known to be extremely conservative in its management it is unsafe for the small investor to invest largely in common stock, since he runs the very considerable risk of being wiped out in the event of disaster and is bound to suffer most severely in the event of reorganization. On the other hand, in the event of success, he can enjoy the full measure of his company's prosperity.

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Advantageous Use of Preferred Stock

There are certain types of enterprise which may properly use preferred stock issues as a means of raising additional capital. For example, this means may safely be used by old established companies whose earnings are relatively stable from year to year and who have large surplus capital represented by readily realizable assets. In the event a company does not desire to reduce its working capital to a narrow margin, but needs additional funds in order to carry out certain legitimate expenditures for the business, and especially where the common stockholders have great faith in the future prosperity of their company and do not wish to admit outsiders to a participation in these large anticipated profits, it might be highly desirable to provide the additional working capital required by means of an issue of preferred stock. Preferred stock issues are especially satisfactory means of raising additional capital for public utilities or other companies whose business is of such a character that the net earnings are relatively stable from year to year and can almost definitely be relied upon.

Preferred stock issues are dangerous, on the other hand, to new companies not yet firmly established, and to companies whose business is of such a character that almost of necessity they must anticipate that years of large earnings will be followed by years of low earnings or perhaps by years of losses.

Two Principal Advantages

In connection with our consideration of the different classes of stock it may be desirable to touch upon the two principal advantages to the corporation in the issue of no par stock. First of all, since it has no par value, it may readily be sold at a price attractive to the investor without the corporation's incurring the odium incident to selling stock at a discount. It is especially useful in the event of reorganization in permitting the corporation to scale down the equity of the common stockholders to absorb a deficit, and to permit the rejuvenated company to start business with a clean slate and yet accomplish these desired ends without reducing the number of shares of stock held by the common stockholders. This latter purpose may, of course, be secured by scaling down the par value of stock. For instance, stock having a par value of $100 a share may be scaled down to a par value of $10. or even $1.00 a share. It is not necessary to course, to issue no par value stock in order to effect the rejuvenation of the corporation in the manner outlined, but no par value stock appears to be the favorite medium for this purpose.

Regulation in Some States

Some states regulate the par values of stock which may be issued, but a minimum par value stock often has all of the characteristics of a no par value stock. The form of the stock may be influenced by the prevailing type of market, and a company may be better able at a certain time to sell common stock to the public than preferred stock. Recently there have been considerable issues of stock which are a cross between preferred and common, usually having no par value, with a Class "A" series preferred as to fixed dividends and as to equity in the event of liquidation, but participating with Class "B" as to dividends after certain definite distributions have been made to the Class "B" stock.

Should Be Readily Absorbed

In any contemplated financing, the securities offered should be of the type which will be readily absorbed by the public, will provide necessary capital for the company at the least cost, will not close the door to future financing, and so protected as to benefit the security holder without burdening or hampering the operation of the business. There is a mutual basis which may be worked out whereby all of the interests involved may be protected in case of trouble, with the security holder, however, occupying a prior position to the owners of the business in the event of a reorganization.

COST SECTION

Boston Paper Merchants Optimistic

BOSTON, Mass., May 27, 1926.—May will go down as a "fair" month, nothing else, so far as Boston's paper business is concerned. The last week was supposed to have put the month on a real paying basis, but it failed to do so according to this week's survey of the trade. There were bright spots here and there, prices remained the same. There was the regular hand-to-mouth buying but no noticeable increase was registered in any quarter.

June, however, will be another story, if all reports and predictions come true. Every sign points to a revival of some real business during the coming month and then a let up until probably early in September. The most noticeable demand at the present is for white papers, fine goods and bookings. Stock for the publishers is in steady demand and stock for the stationers specializing in invitations and graduations also has a generous call.

There has been some increase in the last week in the coarse paper division, due chiefly to an increased business in the uptown stores and better conditions throughout the commercial centers of New England. The tissue paper dealers are enjoying fresh business just now. The gummed paper men are also busy and those houses dealing in summer specialities are having a good response all along the line.

The paper box men report a quiet week, but with prospects for better business during June. The rag stock division is still quiet with rag collections being a little better and there being a slight increase in the demand from the mills. Prices have not changed in this branch either.

A large representation from Boston attended the New England Paper Merchants Association conference at Holyoke this week and reported a delightful trip, beneficial and entertaining.

Boston's paper merchants as a whole are not pessimistic over present conditions, the writer finds. Plenty of faith in the outcome of 1926 can be found. The last six months of the year, leaders say, will tell a different story and it is the general concern that this year will compare favorably, if not beter than last year.

R. A. Cauthorne Gives Outing to Paper Men

Richmond, Va., May 29, 1926.—Ross A. Cauthorne, president of the R. A. Cauthorne Paper Company and the Southern Paper Company, gave an all-day outing Saturday of last week to the employes of the two companies, the paper jobbers and leading printers of Richmond, at his new bungalow, located at Point Bluff on the Rappahannock river, just above Tappahannock, Va.

There were about 100 guests present and the day was spent in fishing, boating and other outdoor sports, baseball and trap shooting proved to be the most popular pastime of the day. A delightful dinner was served, consisting of old Virginia fried chicken, deviled eggs, country ham sandwiches, deviled crabs, pickles, olives, etc. Albert Wadday ably assisted Mr. Cauthorne in the taking charge of the refreshments and pulling off the various athletic events.

Late in the evening the party motored back to Richmond declaring Mr. Cauthorne as a wonderful host. The event was on the opening of Mr. Cauthorne's new bungalow, just completed.

German News Print Paper Reduced

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., May 19, 1926.—A reduction of 11 cents per 100 pounds has been announced by the German News Print Association, bringing the present price of that paper down to $3.56 per 100 pounds, says a report to the Paper Division of the Department of Commerce from Consul General Coffin, at Berlin. No changes have been announced, says the report, in the price of rotogravure papers, kraft papers, or of sulphite pulp.

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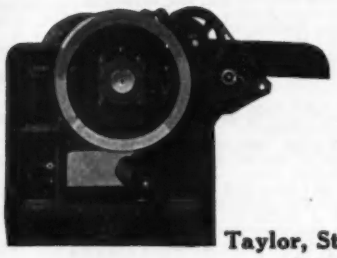

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SUMMARY

Cigarette paper .....68 cs.
Wall paper .....130 rolls, 7 bls.
Wall Board .....43 cs.
Paper hangings .....8 bls.
News print .....630 rolls, 61 cs.
Printing paper .....26 bls., 386 cs.
Wrapping paper .....18 cs.
Packing paper .....485 rolls, 54 bls., 19 cs.
Kraft paper .....242 rolls
Cover paper .....5 cs.
Tracing paper .....2 cs.
Pergamyn paper .....32 cs.
Fancy paper .....16 cs.
Photo paper .....12 cs.
Baryta coated paper .....185 cs.
Metal paper .....35 cs.
Basic paper .....28 cs.
Surface coated paper .....49 cs.
Gold coated paper .....2 cs.
Envelopes .....44 cs.
Decalcomania paper .....25 cs.
Colored paper .....6 cs.
Painted paper .....2 cs.
Trunk paper .....5 cs.
Writing paper .....2 cs.
Straw paper .....68 bls.
Straw board .....195 rolls, 45 pgs.
Miscellaneous paper ..926 rolls, 275 bls., 101 cs.

CIGARETTE PAPER

Standard Products Corp., Vincent, Havre, 68 cs.

WALL PAPER

Globe Shipping Co., Cleveland, Hamburg, 3 bls.
F. J. Emmerich, Olympic, Southampton, 4 bls.
Janeway & Carpender, Kolsnaren, Hango, 130 rolls.

WALL BOARD

O. M. Baxter, Gripsholm, Gothenburg, 43 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., Aquitania, Southampton, 8 bls.

NEWS PRINT

Hudson Trading Co., Cleveland, Hamburg, 10 cs.
Parsons & Whittemore Inc., Kolsnaren, Hango, 434 rolls.
Maurice O'Meara Co., by same, 25 rolls.
National City Bank, by same, 51 bls.
H. Reeve Angel & Co., Inc., President Harding, Bremen, 171 rolls.

PRINTING PAPER

P. C. Zuhlke, Belgenland, Antwerp, 84 cs.
P. Puttman, by same, 35 cs.
B. F. Drakenfeld & Co., Caronia, Liverpool, 29 cs.
Oxford University Press, by same, 7 cs.
J. Henschel & Co., Cleveland, Hamburg, 1 cs.
W. Hartman & Co., Inc., by same, 26 bls.
Maurice O'Meara Co., Kolsnaren, Hango, 230 cs.

WRAPPING PAPER

E. Dietzgen & Co., Inc., Ryndam, Rotterdam, 18 cs.

PACKING PAPER

Okonite Callender & Cable Co. Bergensfjord, Oslo, 485 rolls.
Quality Art Novelty Co., Cleveland, Hamburg, 6 bls.
Rohner & Gehrig, by same, 11 cs.
International F'd'g Co., by same, 8 cs.
J. P. Heffernan Paper Co., Gripsholm, Gothenburg, 48 bls.

KRAFT PAPER

Arkell Safety Bag Co., Gripsholm, Gothenburg, 242 rolls.

COVER PAPER

International F'd'g Co., Cleveland, Hamburg, 5 cs.

TRACING PAPER

E. Dietzgen & Co., Inc., Cleveland, Hamburg, 2 cs.

PERGAMYN PAPER

F. C. Strype, Cleveland, Hamburg, 2 cs.

FANCY PAPER

Whiting & Patterson Co., Aquitania, Southampton, 16 cs.

PHOTO PAPER

G. Murphy & Co., Aquitania, Southampton, 12 cs.

BARYTA COATED PAPER

Globe Shipping Co., Stuttgart, Bremen, 101 cs.
Globe Shipping Co., Pr. Harding, Bremen, 84 cs.

METAL PAPER

Weiss Forwarding Co., Stuttgart, Bremen, 9 cs.
Hensel Bruckman & Lorbacher, Cleveland, Hamburg, 26 cs.

BASIC PAPER

Globe Shipping Co., Belgenland, Antwerp, 28 cs.

SURFACE COATED PAPER

Phoenix Shipping Co., Cleveland, Hamburg, 49 cs.

GOLD COATED PAPER

C. B. Richard & Co., Pr. Harding, Bremen, 2 cs.

ENVELOPES

Globe Shipping Co., Pr. Harding, Bremen, 44 cs.

DECALCOMANIA PAPER

L. A. Consmiller, Stuttgart, Bremen, 6 cs.
C. W. Sellers, by same, 2 cs.
C. W. Sellers, Cleveland, Hamburg, 4 cs.
C. W. Sellers, Pr. Harding, Bremen, 8 cs.
L. A. Consmiller, by same, 5 cs.

COLORED PAPER

Borden Riley Paper Co., Belgenland, Antwerp, 6 cs.

PAINTED PAPER

A. C. Dodman, Jr., Inc., Belgenland, Antwerp, 2 cs.

TRUNK PAPER

P. H. Petry & Co., Cleveland, Hamburg, 5 cs.

WRITING PAPER

G. W. Sheldon & Co., Cleveland, Hamburg, 2 cs.

STRAW PAPER

American Express Co, Cleveland, Hamburg, 68 bls.

STRAW BOARD

Spaulding & Tewksbury, Ryndam, Rotterdam, 45 pkgs., 79 rolls.
W. von Doorn, Ryndam, Rotterdam, 116 rolls.

MISCELLANEOUS PAPER

Japan Paper Co., Duilio, Genoa, 3 cs.
The Landowne Co., Vincent, Havre, 6 cs.
International F'd'g. Co., Ryndam, Rotterdam, 10 cs.
Tamm & Co., Ryndam, Rotterdam, 11 cs.
Perkins Goodwin & Co., Ryndam, Rotterdam, 33 rolls, 1 cse.
Keuffel & Esser, Ryndam, Rotterdam, 41 cs.
H. D. Catty Co., Ryndam, Rotterdam, 3 cs.
F. C. Strype, Cleveland, Hamburg, 6 cs.
Perkins Goodwin & Co., Cleveland, Hamburg, 14 cs.
Franklin Simon & Co., Olympic, Southampton, 2 cs.
T. Barrett & Son, Gripsholm, Gothenburg, 231 rolls, 62 bls.
M. M. Cohen, Gripsholm, Gothenburg, 36 bls., 52 rolls.
Mugler & Umlauf, Gripsholm, Gothenburg, 96 bls., 6 rolls.
Universal Paper Co., Gripsholm, Gothenburg, 47 bls., 506 rolls.
J. W. Banker, Gripsholm, Gothenburg, 34 bls., 98 rolls.
E. H. Sergeant & Co., Gripsholm, Gothenburg, 4cs.

RAGS, BAGGINGS, ETC.

Castle & Overton, Inc., London Exchange, London, 121 bls bagging.
Equitable Trust Co., Vincent, Havre, 36 bls. rags.
L. H. Abenheimer, Vincent, Havre, 129 bls. bagging.
Castle & Overton, Inc., Vincent, Dunkirk, 74 bls. rags.
Royal Mfg. Co., Vincent, Dunkirk, 47 bls. rags.
Maurice O'Meara Co., Vincent, Dunkirk, 18 bls. cottonwaste.
Maurice O'Meara Co., Vincent, Dunkirk, 213 bls. flaxwaste.
Darmstadt Scott & Courtney, Vincent Dunkirk, 88 bls. bagging.
S. Silberman, Vincent, Dunkirk, 25 bls. rags.
State Bank, India Maru, Naples, 99 bls. rags.
Bowery East River Nat'l. Bank, India Maru, Leghorn, 121 bls. rags.
Chase National Bank, India Maru, Naples, 38 bls. rags.
Brown Bros. & Co., Hellen, Alexandria, 153 bls. rags.
Bowery East River Nat'l. Bank, Hellen, Marseilles, 200 bls. rags.
Castle & Overton, Inc., Hellen, Spain, 124 bls. bagging.
L. H. Abenheimer, Hellen, Spain, 65 bls. bagging.
Mechanics & Metals Nat'l. Bank, West Arrow, Antwerp, 68 bls. bagging.
M. Maier Papermill Supply Co., West Arrow, Antwerp, 54 bls. bagging.
Anglo South American Trust Co., Ryndam, Rotterdam, 18 bls. rags.
Weil Bros., Hatteras, Manchester, 53 bls. rags.
J. M. Johnson, Hatteras, Manchester, 51 bls. rags.
J. M. Johnson, Hatteras, Manchester, 61 bls. bagging.
True & McClelland, Hatteras, Manchester, 50 bls. cottonwaste.
Hughes Fawcett, Hatteras, Belfast, 36 bls. flaxwaste.
Marx Maier Papermill Supply Co., Ala, Rotterdam, 46 bls. rags.
G. M. Graves Co., Ala Rotterdam, 50 bls. rags.
Bulkley Dunton & Co., Ala, Rotterdam, 48 bls. rags.
M. Maier Papermill Supply Co., Ala, Rotterdam, 234 bls. bagging.
G. W. Millar Co., Ala, Rotterdam, 58 bls. rags.
Sterling Mill Supply Co., Ala, Rotterdam, 67 bls. rags.
Sterling Mill Supply Co., Ala, Rotterdam, 205 bls. bagging.
R. Wolf, Ala, Rotterdam, 16 bls. bagging.
B. D. Kaplan, Caronia Liverpool, 46 bls. rags.
Mutnik Bros., Caronia, Liverpool, 23 bls. rags.
Essbeekay Import & Export Co., Cleveland, Hamburg, 27 bls. rags.
E. J. Keller Co., Inc., Cleveland, Hamburg, 66 bls. bagging.
Chemical National Bank, Berlin, Bremen, 150 bls. rags.
Irving Bank Columbia Trust Co., Pr. Harding, Bremen, 45 bls. rags.
Manufacturers Trust Co., Londonier, Antwerp, 45 bls. threadwaste.
Anglo South American Trust Co., Londonier, Antwerp, 406 bls. flaxwaste.
Anglo South American Trust Co., Londonier, Antwerp, 93 bls. cardwaste.
Equitable Trust Co., Londonier, Antwerp, 25 bls. threadwaste.
Darmstadt Scott & Courtney, Londonier, Antwerp, 20 bls. rags.

OLD ROPE

Brown Bros. & Co., Vincent, Havre, 52 coils.
W. Schall & Co., Hellen, Barcelona, 35 coils.
Darmstadt Scott & Courtney, West Arrow, Antwerp, 79 coils.
Irving Bank Columbia Trust Co., Stuttgart, Bremen, 67 coils.
Brown Bros. & Co., Ryndam, Rotterdam, 142 coils.
Brown Bros. & Co., Bergensfjord, Oslo, 60 coils.
Brown Bros. & Co., Londonier, Antwerp, 84 coils.

MANILA ROPE

Ellermans' Wilson Line, Olympic, Southampton, 71 coils.

SISAL ROPE

New York Cordage Co., Belgenland Antwerp, 206 coils.

SUNN ROPE

New York Cordage Co., Belgenland Antwerp, 13 coils.

MANILA HEMP ROPE

Upson Walton Co., Jason, Manila, 199 pkgs.
Peck & Mack, Jason, Manila, 278 pkgs.

WOOD PULP

E. M. Sergeant & Co., Bergensfjord, Oslo, 470 bls. chemical pulp.
Castle and Overton, Inc., Ala, Rotterdam, 180 bls. wood pulp 28 tons.
Mr. Gottesman & Co., Inc., Clara, Sebenico, 2000 bls. wood pulp.
H. Hollesen Inc., Cleveland, Hamburg, 145 bls. sulphite pulp 25 tons.
Nilsen Lyon & Co., Berlin, Bremen, 935 bls. wood pulp.
National City Bank, Fredericus Rex, Hamburg, 100 bls. wood pulp, 20 tons.
J. Anderson & Co., Fredericus Rex, Hamburg, 275 bls. wood pulp, 55 tons.
Italian Bank, Fredericus Rex, Hamburg, 676 bls. wood pulp, 100 tons.
Scandinavian Pulp Agency Inc., Gripsholm, Gothenburg, 1614 bls. kraft pulp.
Johanson Wales & Sparre Inc., Gripsholm, Gothenburg, 700 bls. wood pulp.

(Continued on page 68)

1864 1926

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New York Office

Imports of Paper and Paper Stock

(*Continued from page 66*)

J. Anderson & Co., Gripsholm, Gothenburg, 250 bls. wood pulp.
E. M. Sergeant & Co., Gripsholm, Gothenburg, 431 bls. sulphite pulp.
Price & Pierce Ltd., Gripsholm, Gothenburg, 2280 bls. wet pulp.
Mead Patton & Co., Ltd., Aslaug, Gaspe, 6074 bls. sulphite pulp 1022 ton.
Tidewater Papermills Co., Harmattan Wood Fibre, 4800 bls. sulphite pulp.
Tidewater Papermills Co., Harmattan, Vancouver, 1700 bls. sulphite pulp.
Bulkley Dunton & Co., Bremen, Bremen, 405 bls. wood pulp.

WOOD PULP BOARDS

Lagerloef Trading Co., Kolsnaren, Hango, 465 bls.
Wilkinson Bros. & Co., Inc., Gripsholm, Gothenburg, 22 bls.
Fibre Case & Novelty Co., Gripsholm, Gothenburg, 82 bls.

WOOD PULP WADDING

Bendix Paper Co., Ryndam, Rotterdam, 50 bls.

WOOD FLOUR

The Burnet Co., Ala, Rotterdam, 130 bags, 6490 kilos.
The Bakelite Co., Ala, Rotterdam, 849 bags, 65,210 kilos.
The Hansa Co., Ala, Rotterdam, 400 bls, 20,300 kilos.

CASEIN

Kalbfleisch Corp., Amer. Legion, B. Aires, 167 bags.
T. M. Duche & Sons, Boswell, B. Aires, 1251 bags.
Casein Mfg. Co., Boswell, B. Aires, 417 bags.
Atterbury Bros., Inc., Boswell, B. Aires, 667 bags.
T. M. Duche & Sons, Cubano, B. Aires, 2085 bags, 125,700 kilos.

PORTLAND IMPORTS

WEEK ENDING MAY 29, 1926

Bulkley Dunton & Co., Seattle, Spirit, 7550 bls. woodpulp.

PHILADELPHIA IMPORTS

WEEK ENDING MAY 29, 1926

F. Weber & Co., London Exchange, London, 4 cs. tissue paper.
A. Murphy & Co., London Exchange, London, 2 cs. writing paper.
Stephano Bros., Vincent, Havre, 4 cs. cigarette paper.
J. M. Hagy Waste Works, Vincent, Havre, 19 bls. rags.
Old Colony Trust Co., Vincent, Havre, 206 coils old rope.
E. Butterworth & Co., Inc., Vincent, Dunkirk, 125 bls. flaxwaste.
A. W. Fenton, Inc., Vincent, Dunkirk, 223 bls. rags.
Central National Bank, Hel'en, Marseilles, 82 bls. rags.
Anglo South American Trust Co., Hellen, Marseilles, 156 bls. rags.
Congoleum Nairn Co., Hellen Marseilles, 242 bls. rags.
Castle & Overton, Inc., Hellen, Marseilles, 118 bls. rags.
Union National Bank, Hellen, Barcelona, 43 bls. rags.
Union National Bank, Hellen, Barcelona, 20 bls. bagging.
E. J. Keller Co., Inc., Hellen, Barcelona, 66 bls. rags.
Brown Bros. & Co., Ala, Rotterdam, 29 bls. threadwaste.
Pottasch Bros., Ala, Rotterdam, 160 bls. bagging.
O. G. Hempstead & Co., Ala, Rotterdam, 696 bags woodflour, 34,960 kilos.
M. Maier Papermill Supply Co., Ala, Rotterdam, 49 coils old rope.
Reis & Co., Ala, Rotterdam, 59 bls. cotton-waste.
Chase National Bank, Coer'd Alene, Algiers, 45 bls. rags.
Chase National Bank, Coer'd Alene, Algiers, 91 coils old rope.
Bulkley Dunton & Co., Gottingen, ———, 1065 bls. woodpulp.
Bulkely Dunton & Co., Yorck, Bremen, 270 bls. woodpulp.
Castle & Overton, Inc., ———, Antwerp, 1468 bls. woodpulp.

BALTIMORE IMPORTS

WEEK ENDING MAY 29, 1926

Bulkley Dunton & Co., Gottingen, ———, 405 bls. woodpulp.
Bulkley Dunton & Co., Sweden, Maru, 525 bls. woodpulp.
Castle & Overton, Inc., Boschdyk, Antwerp, 1020 bls. woodpulp.

NEW ORLEANS IMPORTS

WEEK ENDING MAY 29, 1926

Castle & Overton, Inc., De La Salle, France, 454 bls. rags.

BOSTON IMPORTS

WEEK ENDING MAY 29, 1926

F. S. Webster & Co., Caronia, Liverpool, 6 cs. tissue paper.
G. F. Malcolm, Caronia, Liverpool, 44 cs. tissue paper.
Castle & Overton, Inc., ———, Antwerp, 187 bls. woodpulp.
Bulkley Dunton & Co., Sagoporack, ———, 600 bls. woodpulp.
Bulkley Dunton & Co., Seattle Spirit,, ———, 525 bls. woodpulp.
Kalbfleisch Corp., Cubano, B. Aires, 667 bags casein, 40,020 kilos.
1st Nat'l. Bank of Boston, Cubano, B. Aires, 1668 bags casein, 100,800 kilos.
American Exchange Nat'l. Bank, Cubano, B. Aires, 417 bags casein, 25,020 kilos. bags casein, 52,080 kilos.

Provincial Extensions Going Ahead

The Provincial Paper Mills, Toronto, have received word from Charles Walmsley & Co., builder of the new paper making machine which will be installed at the Port Arthur division of the company, to the effect that the recent labor trouble in England have not in any way interfered with construction on the machine, which will be delivered on October 1, and put into operation at Port Arthur by the end of the present year. Work is now going ahead rapidly in extending the machine and the beater rooms, and doubling the present capacity of the ground wood plant.

Millwright Sustains Injuries at Franklin

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 1, 1926.—Serious injuries were sustained the past week by Cecil Lawson, 35 years old, a millwright employed at the Franklin Board and Paper Company's mill in Franklin, when he was caught between the pulley on the beater shaft and a concrete wall. Dr. Hamilton was summoned to attend the injured man who was removed as soon as possible to the Middletown hospital. Lawson's home is in Columbus, where his wife and child reside.

American Writing to Centralize in Holyoke

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., June 1, 1926.—President S. L. Willson, of the American Writing Paper Company, reaffirmed the past week the policy of the company to centralize to a greater or less extent its work in Holyoke mills. The company has already disposed of several of its outside mills, or closed them down indefinitely. The Agawam No. 2 mill in Mittineague will probably be the next to be closed down; but as many employees as possible will be given work in Holyoke. The No. 1 mill has been closed down for some time in that village.

To Make Paper Specialties at Hudson Falls

HUDSON FALLS, N. Y., May 17, 1926.—A new paper making concern to operate a plant here has been organized and early this week filed articles of incorporation with the Secretary of State at Albany. The new firm will do business under the name of the Nee-Kover Company, Inc., and will manufacture sanitary paper and specialties. The articles of incorporation were filed by L. E. Lewis, of this village. The company is capitalized at $25,000 which is divided into shares of $10 each. A. E. Wilson, of Hudson Falls, is one of the incorporators owning 200 shares of stock. The others are E. A. Crawford, of Cohes, holding 300 shares, and E. S. Shaw, of Hudson Falls, 56 shares.

Raymond Bag Co. Officials to Meet

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 1, 1926.—Arrangements have been made for the annual business convention of the officials and representatives of the Raymond Bag Company, of Middletown, which is scheduled to open June 8 and continue for two days. The plans include business and social sessions at the company's plant and offices. Representatives from the nine branches maintained by the company throughout the United States by the Middletown firm, will assemble, with happy thoughts of previous gatherings at which profitable business plans were discussed and pleasant social sessions were held.

This year, a dinner and dance at the Butler County Country Club have been planned, as well as other entertainment features which are sure to be interesting. Reports for the past year, discussion of plans for the coming year, and the exchange of salesmanship and other commercial ideas are slated to be given at the convention, to which "The Paper City" has annually looked forward to with evident interest for several years.

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New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, June 2, 1926.

While trading in the local paper market was mostly along routine lines during the past week, the demand for the various grades is fairly satisfactory for this period of the year. Prices, on the whole, are holding up very well and a good volume of inquiries are being received for future business. The sales forces of the leading paper houses are keeping up their efforts and are confidently anticipating many more good orders before the usual midsummer slackness sets in.

Production of news print continues to expand and the increased output is being steadily absorbed, regular contracts accounting for the bulk of the business. Trading in spot supplies has been rather limited of late, but an improved demand is expected to develop at any time now. Prices are generally well maintained at former levels.

Demand for the various grades of paper board is slowly improving, and prices are becoming steadier. The tone of the fine paper market is sound, and the volume of inquiries being received for tissues is considered to be an excellent augury for the future. No radical developments have been reported in the coarse paper market. Wrapping paper is in good request at stead to firm prices.

Mechanical Pulp

Trading in the ground wood market during the past week was rather light. Grinding operations are increasing due to improved weather conditions, and the movement into consuming channels is practically normal. Domestic ground wood is selling at from $30 to $33 a ton, f. o. b., mill, and Canadian at from $28 to 31. Imported moist mechanical pulp is still quoted at from $36 to $38 a ton, on dock, and dry at from $37 to $40 a ton.

Chemical Pulp

The chemical pulp market is still in a strong position, although the situation is a little easier than for some time past. Shipments of imported pulp are beginning to arrive more freely, and, apparently, the paper and board mills are inclined to hold off in the expectation of lower prices in the near future. Imported easy bleaching sulphite is now being offered at from 3.40 to 3.50 cents a pound, but imported bleached sulphite continues to be quoted at from 3.75 to 4.50 cents a pound.

Old Rope and Bagging

Domestic old rope is in fair request at steady prices. Supplies are reported to be rather scarce, and the market appears to be due for a rise should the demand increase to any great extent. Foreign old rope is still said to be moving slowly, according to reports from reliable quarters. Some improvement has been noticed in the demand for bagging, and dealers are anticipating a better market in the near future.

Rags

Some little liveliness is reporting to be developing in both the domestic and imported rag markets. Most of the grades of domestic rags are in slightly stronger demand, and prices are being well maintained. Collections are increasing, and some dealers are said to be holding off in the expectation of higher prices. The better grades of foreign rags are enjoying an improved demand, due to the fact that the fine paper mills are operating at a satisfactory capacity.

Waste Paper

The condition of the waste paper market is reported to be improving. A better feeling is gradually developing for the lower grades. Accumulations are said to be low at present and prices are steadier than for some time past. The quotation on No. 1 Mixed paper has been advanced half a dollar a ton, and the various other grades are maintaining their former levels, with little difficulty.

Twine

Demand for twine is about normal for this time of the year, most of the trading transacted being along routine lines. Wrapping paper is still reported to be in excellent demand, and should this condition continue, the twine industry will benefit proportionally. Observers of the market express the opinion that current prices are too low and an upward movement may be due at any time.

Unusual Logging Action Terminated

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., May 28, 1926.—Payment by Finch, Pruyn & Co., Inc., pulp and paper manufacturers of this city, of a judgment of $10,000 and costs obtained by Frank and John Gallagher in an action to recover damages for breach of contract in a logging job has terminated in what is said to have been one of the most unusual cases in the courts of New York. The plaintiffs had a contract with the company to remove pulpwood from the company's land at Hoffman Notch, Essex county, in 1920 and 1921. They alleged the contract was terminated by the company without cause at the expiration of the first year. They sued to collect prospective profits for the unexpired term of the contract.

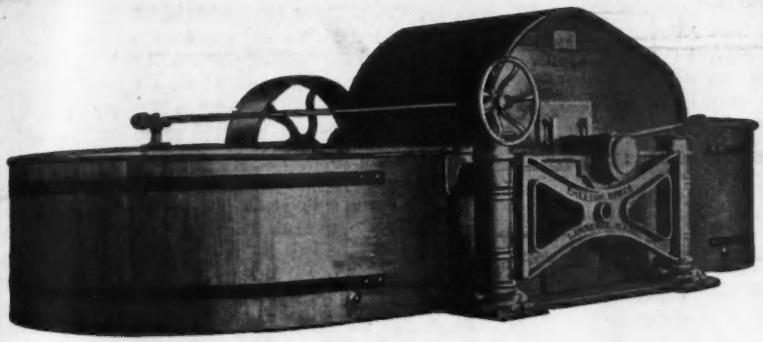
During the trial before Judge Newton J. Herrick and a jury in Warren County Supreme Court at Lake George in May, 1925, the plaintiffs presented evidence to show that equipment they had provided themselves with during the first year and the quantity of timber they could reasonably expect to remove during the unexpired period and also the value of such work. The defendant company appealed to the Appellate Division where the verdict of the jury was unanimously affirmed.

Although there are plenty of precedents relating to prospective profits in contracts involving real estate transaction there are scarcely any relating to prospective profits in logging contracts. So far as can be ascertained the case of Gallagher against Finch, Pruyn & Co. is the only case of its kind ever tried in connection with Adirondack lumbering operations.

Paperboard Association Meets

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., May 29, 1926.—The Paperboard Industries Association held its bi-monthly meeting at the New Palmer House, May 26 and 27. Discussions took place under three groups, viz., Folding Box, with A. O. Osborn presiding; Container group, with J. P. Brunt presiding, and a joint session with President Fletcher M. Durbin presiding. A luncheon was held at noon of the second day. No officers were elected.



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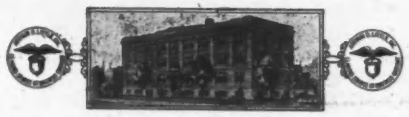

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Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, June 2, 1926.

Trading in the local chemical market during the past week was mostly along routine lines. Shipments on contract continue to proceed in a satisfactory manner and the movement into consumption shows no signs of slackening. While the spot demand at present is more or less limited, prices remain quite steady and concessions are infrequent.

BLANC FIXE.—Demand for blanc fixe has improved and scarcity of spot material has resulted in further price advances, both the pulp and the powder being affected. Contract withdrawals are moving at a normal rate. The pulp is now selling at $60 per ton, in bulk, and the powder at from 4¼ to 4½ cents a pound in barrels, at works.

BLEACHING POWDER.—Conditions in the bleaching powder market are practically unchanged. The demand is holding up very well and stocks are not in excess of requirements. Shipments on contract are moving in good volume. Bleaching powder is still selling at from $2 to $2.40 per 100 pounds in large drums, at works, according to quantity.

CAUSTIC SODA.—The tone of the caustic soda market is steady although trading has fallen off slightly. Shipments on contract are proceeding at a good pace and the movement into consumption is being well maintained. Prices are generally holding to the basis previously reported. Quotations on caustic soda range from $3.10 to $3.15 per 100 pounds, in large drums, at works. Spot car lots are selling at from $3.20 to $3.25 per 100 pounds.

CASEIN.—Some changes have been recorded in the casein market. Due to larger offerings of supplies prices have declined somewhat and buyers are said to be withholding orders in the anticipation of still lower prices. Domestic casein is now selling at from 16 cents to 17½ cents a pound, and imported casein at 17½ cents a pound.

CHINA CLAY.—The china clay market is rather quiet at present and only a moderate volume of inquiries have been reported. Contract withdrawals are proceeding in a normal manner. Imported china clay continues to be quoted at from $13 to $22 a ton, in bulk, ship side. Domestic washed clay is still selling at from $8 to $9 a ton, at mine, and pulverized at $10 a ton.

CHLORINE.—Steadiness continues to prevail in the chlorine market. Production is being well maintained and consumption is reported to be satisfactory. The quotation on chlorine is 4 cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotations is from 4½ to 4¾ cents a pound.

ROSIN.—The undertone of the rosin market is firmer and all grades have registered an increase. Orders covering requirements up to July are said to have been put through. At the naval stores, the grades of rosin used in the paper mills are now being offered at from $11.75 to $12.35 per 280 pounds, ship side, in barrels.

SALT CAKE.—Offerings of salt cake are very limited and prices are much firmer, due to an active and persistent demand from consumers. An excellent volume of inquiries are also in the market for future business. Shipments on contract have been moving into consumption at a normal pace. Sale cake is now quoted at from $18 to $29 a ton, in bulk, at works.

SODA ASH.—The position of the soda ash market is quite sound, and prices are being maintained at former levels. Production is being continued along broad lines and surplus stock is reported to be below normal. Contract quotations, in car lots, at works, per 100 pounds, range as follows: in bulk, $1.25; in bags, $1.38; and in barrels, $1.63.

STARCH.—No changes have been recorded in the starch market of late. Demand shows no signs of diminishing and trading continues along excellent lines. Shipments are moving in good volume. Special paper makers' starch is quoted at $3.32 per 100 pounds and at $3.40 per 100 pounds in barrels.

SULPHATE OF ALUMINA.—Demand for sulphate of alumina continues along routine lines. Stocks on hand, however, are said to be below normal, and the tone of the market is quite firm. Sulphate of alumina is quoted at from $2 to $2.05 per 100 pounds, for the iron free, in bags, at works. The commercial grades are selling at from $1.40 to $1.45, in bags, at works, in car lots.

SULPHUR.—The market for sulphur during the past week was slower than of late. Contract withdrawals, however, continue to move in excellent volume. Prices are being well maintained and reports of concessions are practically non-existent. Sulphur is quoted at from $18 to $19 a ton, in bulk, at mine, and at from $21 to $23 a ton, shipside.

TALC.—Conditions in the talc market are quite satisfactory for this period of the year. The demand is about as active as anticipated and prices are holding up to recently quoted levels. American talc is still selling at from $15 to $18 a ton, at mine, and French talc at from $18 to $22 a ton, ship side.

Good Straw Crop Anticipated in Ohio

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 1, 1926.—It is probably too early to give an accurate forecast of the country's straw crop, but paper manufacturers are keeping their eyes on the crop reports, just the same, and are sizing up the situation. In Ohio, and particularly in this chosen section, the Miami Valley, whose fertility has been compared by some to that of the Nile, the condition of winter wheat, as shown by the report up to the first of the month, was 81, compared with 62 last year at this time, or a ten-year average of 80. For the United States as a whole, manufacturers who have been following reports state the condition was 84 compared with 83.6 as a ten-year average.

In Ohio the abandonment of acreage to May 1 was four per cent, leaving 1,800,000 to be harvested. For the United States as a whole the acreage abandoned to May 1 was estimated to be 5.6 per cent, as compared with 13 per cent for the ten-year average. If these figures mean anything at all, they indicate a greatly improved condition, or rather a better prospect than last year for a good straw crop.

Statisticians say the figures mean a harvest of 549,000,000 bushels of winter wheat, as compared with 398,000,000 bushels last year, and the ten-year average of 538,000,000 bushels. Those who have been following the reports state that both Canada and Europe show a slight decrease in acreage compared with last year, though prospects for good yields are of the best. One way or the other, these reports concerning foreign countries will not bother the American manufacturers to any great extent.

Foremen Convene at Springfield

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 1, 1926.—Most Miami Valley industrial centers were represented at the annual convention of the National Association of Foremen's clubs at Springfield, Ohio, the past week. Thomas B. Fordham, of this city, was elected president of the association; E. G. Meyers, Springfield, vice president; E. H. Tingley, Dayton, secretary; W. Van Etten, Richmond, Ind., treasurer. Members of the Board of Control include the officers, C. E. Roberts, Canton, and E. C. Fisher, Cincinnati. Cincinnati was chosen as the next convention city.

Dayton's contingent headed the parade in honor of having the largest number of foremen in line. The Piqua delegation made a distinctive hit and was headed by a band. Charles F. Kettering of this city was the principal speaker at the annual dinner. He explained the requisites of a good foreman and the methods of obtaining success in mill and factory work. The convention was attended by nearly 1,500 delegates and was considered to have been a marked success.